

Disconnection and Reconnection: Exploring
Southwestern Heritage Exhibit Spaces,
Content and the Visitor Experience

By Joanne Lynn Gallagher

A Thesis

Submitted in Partial Fulfillment
of the Requirements for the Degree of
Master of Social Sciences
in Anthropology

Northern Arizona University

December 2023

Approved:

Dr. Kerry F. Thompson, Ph.D., Committee Chair

Dr. Kelley Ann Hays-Gilpin, Ph.D.

Dr. Gavin Healey, Ph.D.

TABLE OF CONTENTS

Abstract.....	iii
Acknowledgments.....	iv
List of Tables.....	vi
List of Figures.....	vii
Chapter 1 Introduction.....	1
Chapter 2 Literature Review.....	10
Chapter 3 Theoretical Framework.....	24
Chapter 4 Research Methods.....	34
Chapter 5 Research Results.....	46
Chapter 6 Discussion and Conclusion.....	67
Appendix A: Proposed Survey Guide.....	81
Appendix B: Codebook.....	82
References Cited.....	85

ABSTRACT

Indigenous voices in heritage exhibitions have historically been lacking in the disciplines of museology, anthropology, and archaeology. Scholars in these disciplines have asserted that collaborative exhibitions lead to more accurate representations of Indigenous Peoples in museums and stronger relationships between museum institutions and tribal stakeholders. In this research project, I use museums, archaeology, and visitor studies to examine the presence of Indigenous voices in heritage exhibitions and to investigate how successfully these areas draw visitors' attention. This project explores the patterns of exhibition content, the presence of Indigenous voices, and the average length of time guests. interacted with exhibitions that focus on Indigenous heritage. I tracked and interviewed 120 participants in three southwestern heritage exhibitions at the Heard Museum in Phoenix and Museum of Northern Arizona in Flagstaff. These institutions are leaders in creating collaborative exhibitions that feature the voices of southwestern Native and Tribal Nations and have adopted some Indigenous curatorial practices in their collection management activities. My research supports the conclusion that visitors enjoy the results of meaningful consultation practices for collaborative exhibition management.

Acknowledgments

I want to express my profound appreciation to my advisor and committee chair, Dr. Kerry Thompson, for all her insight and support throughout my thesis process. I'm also grateful to my committee members, Dr. Kelley Hays-Gilpin and Dr. Gavin Healey. I would also like to thank my past committee member, Dr. Lisa Hardy and past advisor, Dr. Nicolas Laluk. I want to acknowledge the tremendous amount of help I received from the Northern Arizona University (NAU) Anthropology Department, including Dr. Ora Marek-Martinez, Dr. Melissa Liebert, Dr. Leah Mundell, Dr. Emery Eaves, Dr. Michelle Parsons, and Dr. Chris Schwartz. I would also like to thank Dr. Rebekah Pratt-Sturges in the NAU Department of Humanities for her guidance and resources in Museum Studies. Thank you to my other mentors; Dr. Gwendolyn Saul, Tina Najbjerg, Katie Buesch, Liz Hodges, Kurt Dongoske, and Curtis Quam. I am grateful to have received the NAU Ray A. Madden Research Award and Dr. David R. Wilcox Scholarship sponsored by the Verde Valley Archaeological Chapter of the Arizona Archaeological Society in support of my academic pursuits. A special thanks to Heard Museum and Museum of Northern Arizona for allowing me the space and time to conduct my research. Thank you, Sheena Glasgow, for assisting me with my project research and being a voice of reason for my ridiculous pursuits. I want to thank my family, including Casey and Dana Gallagher. I especially want to thank my sibling, Nick Griffen, for encouraging me. I'm deeply indebted to my support system, my friends Sheena Glasgow, Sarah Berger, Allison Smith, Breana Esparza, Allysha Barton, Catherine Cardenas, Ronnie Zaragosa, Ashley Rivas, J.P Rivas, and Melissa Collins for their advice and guidance throughout these two years. I would also like to thank my MNA family, managers, and coworkers. I would also like to thank the MNA museum volunteers, including Amanda Blanco, Mickey Houston, Rebecca Durrenberger, and Ken Kaemmerle, for all their

insight and support during my project. I would also like to thank my cohort Members Zoe Koth, Brianna Kohler, Lesley Rodriguez, Bethany Budge, Bijion Smith, and Dan Geschneider. Special thanks to my emotional support house panthers Mordecai (Morty) Zaragosa-Gallagher and Sombra Esparza-Gallagher, for all their love and cuddles for me. This thesis is dedicated to my best friend, Gregory A. Shapiro, and my mom, Jessie A. Gallagher. Above all else, I would like to thank my fiancé, Michael Tyler Padian, for his unrelenting support, constant guidance, and insightful suggestions.

LIST OF TABLES

Table 1: Falk & Dierking's Contextual Model of Learning Table.....	31
Table 2: Proposed Survey Questions.....	39
Table 3: Participant Feedback Codes Table	44
Table 4: Native Peoples of the Colorado Plateau Gallery Totals.....	48
Table 5: Native Peoples of the Colorado Plateau Gallery Averages.....	48
Table 6: Native Peoples of the Colorado Plateau Cold spots'	49
Table 7: Native Peoples of the Colorado Plateau 'Hot spots'	49
Table 8: Native Peoples of the Colorado Plateau Interactive Areas.....	50
Table 9: Native Peoples of the Colorado Plateau Gallery Feedback.....	52
Table 10: Native Peoples of the Colorado Plateau Top Feedback Codes.....	52
Table 11: Archaeology Gallery Totals	55
Table 12: Archaeology Gallery Averages	55
Table 13: Archaeology Gallery Hot Spots.....	55
Table 14: Archaeology Gallery Cold Spots.....	56
Table 15: Archaeology Gallery Interactive Areas.....	58
Table 16: Archaeology Gallery Feedback.....	58
Table 17: Archaeology Gallery Top Feedback Codes.....	58
Table 18: HOME: Native Peoples of the Southwest Tracking Results.....	61
Table 19: HOME: Native Peoples of the Southwest Averages.....	62
Table 20: HOME: Native Peoples of the Southwest Hot Spots.....	63
Table 21: HOME: Native Peoples of the Southwest Cold Spots.....	63
Table 22: HOME: Native Peoples of the Southwest Interactive Areas.....	63
Table 23: HOME: Native Peoples of the Southwest Gallery Observations	64
Table 24: HOME: Native Peoples of the Southwest Gallery Observations.....	64
Table 25: Participant Feedback Codes Table	70
Table 26: Archaeology Gallery Feedback Totals.....	70
Table 27.....	72

LIST OF FIGURES

Figure 1: Archaeology Gallery Layout Map.....	20
Figure 2: Native Peoples of the Colorado Plateau Gallery Overview Map.....	21
Figure 3: HOME Overview Map.....	22
Figure 4: Finished Movement Map for Native Peoples of the Colorado Plateau	35
Figure 5: Finished Movement Map for Archaeology Gallery.....	37
Figure 6: Finished Movement Map For HOME: Native Peoples of the Southwest.....	38
Figure 7: Native Peoples of the Colorado Plateau Final Spatial Coding Chart.....	41
Figure 8: Archaeology Gallery Final Spatial Coding Chart.....	42
Figure 9: HOME: Native Peoples of the Southwest Coding Chart....e	43
Figure 10: A copy of my Quicksheet (P46).....	46
Figure 11: Copy of JLG Database.....	47
Figure 12: B. Serrell's Database.....	67
Figure 13: Results in Comparison to B. Serrell's Database.....	68

Chapter 1

Introduction

Museum institutions have changed dramatically in the last century due to new research on visitor audiences. Institutions are embracing collaborative exhibitions to appeal to audiences of different backgrounds (Phillips 2005). Yet, despite the growing number of collaborative museum exhibits, Indigenous presence is lacking in heritage exhibitions. For my thesis study, I define heritage as valued things that have been passed down or left behind by previous cultures. The absence of Indigenous perspectives is most apparent in private older museum exhibitions. Private institutions have higher rates of resource scarcity compared to public institutions, therefore funds are often lacking to fix older didactic texts for a newer growing museum audience (Lonetree 2012). While Museum Studies scholars prefer exhibition updates every ten years, most museum exhibition content updates occur once every 15-20 years (Pickering 2020). My research focuses on private museums located in the southwest that strongly focus on Indigenous communities - the Heard Museum (THM) and Museum of Northern Arizona (MNA). I explore patterns of visitor interactions between older and newer exhibitions to assess visitor attraction rates in museum settings. Data collection comprised visitor movements, average visitor exhibition viewing time, and survey feedback of individuals within these spaces. I analyze whether there is a noticeable difference in visitor times, stops, and feedback between older and newer exhibitions. My findings indicate that visitors are attracted to exhibition content that discuss Indigenous histories, including U.S. policies that displaced and disadvantaged Indigenous Peoples.

History of Museums

Museums were used as private depositories for the elite power before the 1600s. The popularity of these repositories increased with the rise of imperialism and nationalistic identities (Pickering 2020). For example, before the opening of the London Tower in 1680, it was a private space rarely seen by the public (Pickering 2020). The London Tower repository was one of the first rooms made available for storing and preserving heritage items for public view. During the Renaissance Period, small private collections evolved into Gallerias, which grew popular during this new time of travel, invention, and art (Pickering 2020:13). As imperialistic agendas expanded travel and trade routes, so did the public collections of objects that illustrated nationalistic pride. Open displays, or ‘cabinets of curiosities’ later evolved into intentional collections with institutional identities. Since their inception, public museums have served as historically situated social institutions that have catered to upper-middle-class audiences (Ames 1992). The museum as an institution was a product of a nation's pride and its primary source of entertainment. The first museum in the U.S. was the Yale Peabody Institution, founded by self-proclaimed archaeologists/collectors to create a repository of cultural items for the American public in the late nineteenth century (Lonetree 2012). These institutions grew as affluent collectors and amateur archaeologists raided archaeological sites. In the 1920's, activism concerning the relocation of cultural resources to the prominent Smithsonian and the Yale Peabody Institution on the east coast grew (Olberding 1997). Private collectors and wealthy families in Arizona adopted Franz Boas's approach to create privately funded local museums in hopes of keeping cultural material from Arizona in the Southwest (Olberding 1997). Although the Antiquities Act was passed in 1906 and established a permitting process and penalties for unauthorized removal of artifacts from archaeological sites, it was not a significant deterrent for looters. Large-scale destruction continued across the Colorado Plateau as individuals looted

archaeological sites for the purposes of selling objects to museums and art collectors. When the Archaeology Resource Protection Act (ARPA) was enacted in 1979, it “strengthened the legal protection of archaeological resources” (Website: [Archaeological Resources Protection Act of 1979](#), Accessed 12/13/2024).

The Establishment of Museum’s Intended Audiences

The act of collecting and subsequent development of museums have created a dissonance between the artifacts and their cultural contexts. Museums preserved things deemed valuable by wealthy members of society, who also acted as the primary audience for museums until the late twentieth century. In the early twentieth century, museums were created for the progression of science rather than the education of the public (Boas 1907). During the New Deal in the 1930s, new funding went into public institutions, including museums. There was a shift in museums to attract the public’s attention and to educate the ‘lower’ classes in hopes of civilizing them (Lonetree 2012). New funding came from older, wealthy families, as many came to Arizona to invest in the growing economies of the state (Olberding 1997). Dwight Heard was a cotton farmer in Phoenix who came from Maryland and bought the Arizona Sun Newspaper and the La Ciudad Archaeological site in downtown Phoenix. Harold and Mary-Russell Colton came from prestigious families in Philadelphia and assisted Jesse Walter Fewkes in excavating Elden Pueblo (Olberding 1997). Other wealthy patrons assisted the foundation of these institutions, and their children were hired as employees and taken into these institutions which furthered their parents' legacy (Graves 2017). In the 1980’s, mainstream museums shifted the use of materials and collections to focus on educating and reaching public audiences (Falk and Dierking 2012).

Established in 1906, the American Alliance of Museums provided certification and guidelines for all museums within the United States to comply with and adhere by; both the Heard Museum (THM) and the Museum of Northern Arizona (MNA) are institutions accredited

by the AAM (American Alliance of Museums 2023). In 2000, the American Alliance of Museums (AAM) reported that 60 percent of the American population across all demographic categories visit museums regularly (Falk and Dierking 2012). Given this contemporary context of museum audiences, my research aims to discuss the importance of interrelationships among communities, visitors, and museological institutions through patterns of visitor spatial movements, visitor feedback codes, and average visitor exhibit time.

The Heard Museum and the Museum of Northern Arizona

Arizona's warmer climate and beautiful landscapes captured American audiences in film, which increased tourism to the area. During this time, Arizona archaeological sites were excavated and their artifacts were taken to research and museum institutions on the East Coast. This removal of artifacts resulted in local Arizonans advocating for the establishment of regional museums to protect artifacts and keep them near their source communities (Olberding 1997). The first museum to open in Arizona was the Arizona State Museum in 1893 (Arizona State Museum 2023; website accessed: December 13, 2023). The Museum of Northern Arizona (MNA) was founded in 1928 by Harold and Mary-Russell Ferrell Colton, while the Heard Museum (THM) was established in 1925 by Dwight and Maie Bartlett Heard. From the 1930s to the 1970s Arizona museum organizations worked with archaeologists and the State of Arizona Historic Office to develop and create Native Art and heritage-themed exhibitions.

With more Arizonan heritage museums opening to the public, there was a need for patrons of museums to draw tourist attention to the landscapes and mystery of Arizona (Olberding 1997). These individuals helped fund the museums and controlled their evolution into fully financed institutions. Both MNA and THM opened to the public before 1930. Like all museums, both also have internal power dynamics that influence funding, time, and research.

Each institution's internal dynamics include specialized organizational departments to aid in communicating the institution's mission.

THM came to specialize in Fine Art and the MNA in Archaeology, Fine Art, Ethnology, Science, and Life Zones of the Colorado Plateau. Many private museums drastically change direction if they outlive their founding members in order to continue to appeal to local communities and donors (Graves 2017). THM and MNA have outlived their founders, and their missions, research trajectories, and public identities have also evolved. In the 1970s, as the field of Cultural Resource Management (CRM) developed, the MNA expanded to conduct excavations for federal projects such as the Glen Canyon Project and continues to perform CRM work today (Olberding 1997). On the other hand, THM has focused on refining its library as a state resource for archival materials (Heard Museum 2006).

Franz Boas emphasized the relationship among museum board members, trustees, and curators as the primary way for a museum to understand its public and local communities' interests (Boas 1907). The MNA and THM clearly outline the specifics of a donor's power (Museum of Northern Arizona 2023; Heard Museum 2023). Along with financial sums, donors gain prestige by giving objects to a museum (Pickering 2020). Donated objects can include extensive collections of different kinds of one specific item or several items that are all culturally related. Former Senator Goldwater's Hopi Katsina collection, for example, was donated as a prestige collection to the MNA and THM. The collection is displayed in the "HOME: Native Peoples of the Southwest" exhibition at THM. 'Prestige' collections are groups of items lent to museums under a contract between the lender and the institution. These collections are regularly added to exhibitions and events with didactic perspectives to appeal to larger groups of visitors (Schuster

1998). These additional events include community-driven local gatherings or culturally specialized competitions and markets (Meier 2003).

External Museum Relationships

Depending on the relational dynamics in their corresponding populations, museums may evolve to become an anchor for community operations (Falk 2012). Museum institutions will frame themselves to relate to the community of cultures surrounding them. The MNA and THM have different regional exhibitions that focus on Indigenous groups closest to each museum. The MNA focuses on the tribes in the Colorado Plateau, including the Navajo, Ute, and various Pueblo Cultures. THM showcases southwestern Native and Tribal Nations as far north as the Ute tribe and as far south as the Indigenous Peoples in Northern Mexico.

Private museums rely on ancillary events to gain additional revenue and build relationships with their regional public (Meier 2003). These events can be specialized to celebrate local people, holidays, or festivals. These events build relationships with different local groups and allow the institution to engage and attract new visitors. The associations between museums and the public they serve can become a sociocultural entity. Museums are created by people and act as affiliations that support local communities (Falk and Dierking 2012). Museums are shifting their focus from preserving collections to places of event hosting and fundraising to invest more in their relationships with local constituents (Falk and Dierking 2012). They respect the knowledge and motivations of their visitors, utilize resources to make a difference in their guests' lives, and uphold the quality of life in local communities (Falk and Dierking 2012). THM and MNA fall within this category, as they are both private establishments active in their communities and focus on specialized cultural events throughout the calendar year. These events

include Indigenous art festivals, Hoop Dance contests, Hispanic holiday celebrations, seasonal markets, film festivals, and concerts.

Present Day/Changing Face of Museums

Visitor Studies combines ethnography, marketing, and economics to help institutions with a significant audience understand what brings visitors to their businesses. Visitor studies conducted by Falk and Dierking in the mid-80s indicated that visitors were changing from the upper middle-white class demographic to individuals of all backgrounds (Falk and Dierking 2012). With the rise of social media and increasingly popular tourist destinations, museums are seeking more information on how to draw larger groups of visitors and appeal to demographics of individuals who may be unlikely to go to museums.

Museums in this Study

The Museum of Northern Arizona (MNA) is a Science and Art Association established in 1928. The museum financed itself through a group of Flagstaff citizens, including Harold and Mary-Russell Ferrell Colton (Olberding, 1997). MNA's initial location was in the old women's club in downtown Flagstaff, and it moved to its present location in 1935. Harold Colton served as the Director of MNA for 30 years after its opening in 1928, and Mary-Russell Ferrell Colton served as the head curator of fine arts (Colton 1978). The museum focuses on the life zones, cultures, archaeology, paleontology, and art from the Colorado Plateau. While working at the museum, the Coltons developed relationships with different Indigenous nations, which resulted in the foundation of many collaborative projects, including art festivals, traveling exhibitions, and Indigenous art competitions. In the 1970s, Mary-Russell and Harold passed away, leaving the museum to be led by a new Museum Director, Ned Danson, and a board of donors and

trustees (Olberding 1997). The American Alliance of Museums accredited the institution in 1971 and again in 2013 (Museum of Northern Arizona, 2023).

The Heard Museum

The Heard Museum (THM) is a private art museum founded in 1929 by Dwight and Maie Bartlett Heard (The Heard Museum 2006). Dwight moved to Arizona in hopes that the climate would help his asthma. He settled in the Phoenix area and bought a cotton farm and the Arizona Star newspaper company (The Heard Museum 2006). Soon after, Dwight married Maie Bartlett, and they purchased the Hohokam archaeological site, La Ciudad, and began curating and preserving artifacts excavated from the area (The Heard Museum 2006). After their collections grew, the couple established a private museum based on the La Ciudad Archaeological Collection. Dwight passed before the museum's opening day in November 1929. After that, Maie Heard and board members invested time and resources into Indigenous communities by hosting competitions, festivals, and markets. Today, the museum focuses on the contemporary and past art of Indigenous cultures in the southwest (The Heard Museum 2023). The American Alliance of Museums reaccredited the institutions in 2023 (AAM 2023).

Thesis Research

Data collection consisted of watching and noting visitor movement and interaction and collecting general feedback about gallery likes and dislikes in three Southwest heritage galleries at the two private museums discussed above. According to Visitor Studies researcher Beverly Serrell (2019), there is crucial information in timing and tracking visitor movements in exhibition spaces. Timing and tracking studies can provide information about exhibition design, visitor attention rates, and the influence of attractive exhibit displays. This research can assist museums in understanding nonappealing areas of galleries and can help improve these spaces.

My methods included researching 12 hours in each exhibit and tracking visitors' movement, average time, and locations. After recording the participants, I then asked for a three-to-five-minute feedback survey.

In 36 hours of research, I recorded 119 participant's movements and the feedback/observations from 50 participants. I collected this tracking data and survey feedback through fieldwork collection, and then I analyzed the results of the visitor behaviors. I observed visitors through participant observation and mapped their reactions and observations in the three exhibitions. My research findings are that participant tracking and timing indicated a substantial rate of Diligent Visitors in the exhibitions. A Diligent Visitor (DV) is a museum guest who stops at more than half of the themed displays in an exhibition. (Serrell 2019). Visitor feedback from my interviews indicated that most museum visitors at the MNA galleries noticed when there was a presence and an absence of Indigenous voices in the AG and NPCP Galleries. At the THM, most visitors were confused about the exhibition layout, including where the exit was.

Organization of Thesis

Subsequent chapters of this thesis include a literature review (Ch. 2), theoretical perspectives (Ch. 3), methods (Ch. 4), and results and discussion (Ch. 5 & 6). In my literature review section, I discuss the history of museums, the founding of National Museum of the American Indian, and the introduction of the visitor studies research field and its application in museums today. In my theory chapter, I will focus on Museology, Indigenous Theory, and the Contextual Model of Learning to gain a better theoretical understanding of my participant exhibitions and visitors. In my methods section, I discuss my correspondence, the creation of exhibition movement maps, the fieldwork process, and the coding stages of my research. The

results discussed are in Chapter 5 with a comparison to published literature, and I present a discussion and research conclusions in Chapter 6.

Chapter 2

Literature Review

Museums are institutions directly affected by Anthropology, Archaeology, and Visitor Studies. Due to the number of different interdisciplinary fields, I have decided to present a diverse range of research, including the background to museums, the creation of the Museum of the American Indian from the Heye collection, recent research in the popularity of ‘Indigenizing’ museum collections, and the creation of timing and tracking methods in Visitor Studies research. Discussing these topics provides a framework within which previous southwestern heritage and museums can be better understood.

Historically, museums have replaced dynamic identities with static stereotypes (Erikson 2008). Older heritage exhibits that display Indigenous Peoples as outdated stereotypes disconnect Indigenous histories from their contemporary political, social, and cultural realities. Older exhibitions about migrations, archaeology, the sciences, arts, and anthropology have depicted Indigenous Peoples as primitive. Exhibitions used imperial nostalgia as a common frame before the National Museum of the American Indian (NMAI) was established. Indigenous People as ‘primitive’ themes were popular until major civil rights movements like the Red Power Movement and the Native American Museum (NAMM) movement brought attention to the American Master Narrative in American media. These social movements contributed to the creation of New Museology, the National Museum of the American Indian (NMAI), and the passing of the Native American Graves Protection and Repatriation Act (NAGPRA).

The Red Power Movement criticized the absence of Indigenous perspectives in academia. This resulted in the establishment of Cultural Centers dedicated to Indigenous lifeways and knowledge (Lonetree and Cobb 2008). These centers have aided in teaching the public about Indigenous cultures. Some of the artists and items in these displays develop into international exhibitions, like the *A:shiwi A:wan Ulohanne: The Zuni World* map exhibition, which featured Zuni artists illustrating their ancestors' connections to southwestern landscapes (Enote and McLerran 2011).

The Red Power movement aided in the creation of specialized advocacy groups for Indigenous rights. As a result these groups were able to successfully advocate for the creation of the American Indian Religious Freedom Act (AIRFA), the Native American Museological movement, and the creation of the Native American Graves Protection Repatriation Act and the National Museum of the American Indian Act. NAGPRA mandates federally funded institutions to repatriate funerary objects and belongings except for the Smithsonian, which is subject to the NMAI Act.

Before NMAI: William Heye and the Museum of the American Indian collection

The legislation of the NMAI Act allowed the Smithsonian institution to acquire the private Heye collection, curated by the Museum of the American Indian (MAI). The Heye Collection is an extensive private collection of native American artifacts housed at the MAI. On the first day of opening, the MAI contained 55,000 artifacts. Around the time of Heye's death, his collection amassed 700,000 items (Haworth 2016), which is approximately 75 percent of the current NMAI museum collection in total (Smithsonian 2023).

The MAI formally opened in 1922 (Haworth 2016). George Gustav Heye privately founded the museum with the assistance of private patrons. Mr. Heye had no formal background

in museums or archaeology, and he marketed his museum as a ‘cabinet of curiosities’ to the public (Lonetree and Cobb 2008). After Heye’s passing in 1957, the museum’s administration was arrested for illegally selling collection items to assist the museum’s financial stability (Lonetree and Cobb 2008). The collections were put into storage when the MAI closed (Lonetree and Cobb 2008; Smithsonian 2016). The MAI collection was transferred to the Smithsonian in 1989, thereby creating the National Museum of the American Indian, with William Heye listed as its founder (Smithsonian 2023).

Planning the National Museum of the American Indian

The planning stage of NMAI was an arena of debate for Indigenous scholars, members of the Native American Museological Movement (NAMM), curators, Smithsonian staff members, and Tribal leadership/ It was a lengthy process consisting of many years of consultations, semi-structured interviews, and meetings with stakeholder communities. The primary actors in these debates were the US Congress, the Smithsonian National Historic Science Museum (SMNH), the Office of the Secretary, and the NMAI Heye Foundation (Lonetree and Cobb 2008). Susan Shown Harjo, director of the National Congress of the American Indian (NCAI) at the time, reached out to the Smithsonian’s secretary, Robert McCormick Adams, about possibly creating a trust for the Heye collection. Harjo recalled attending the MAI museum and remembering the funerary goods on display (Haworth 2016). This childhood memory and others motivated her and other Indigenous activists to push the U.S. government to pass the American Indian Religious Freedom Act (AIRFA). These were the first of many conversations between the Smithsonian and the NCAI to create the funds to care for and repatriate the Heye Collection.

In 1987, members of the Native American Museological Movement (NAMM) and other Indigenous Stakeholders met with the Smithsonian staff. They emphasized creating a Native

American Museum with Indigenous voices at the center (Erikson 2008). For years, members of tribal nations and NAMM met with Smithsonian staff to discuss the guidelines for proper exhibition building with local stakeholders (Turner 2011). These meetings included extensive consultations and semi-structured interviews for over five years before the NMAI's opening (Turner 2011). Out of this extensive research, the Smithsonian staff created the first NMAI community curation model, 'The Way of the People' (Turner 2011). This document briefly outlined consultation practices with stakeholder communities and museum exhibitions (Turner 2011). This model could not specify any mandated rules for consultation practices and ultimately failed by giving sole exhibition and interpretation design to the lead curatorial consultant (Turner 2011). According to Lonetree and Cobb (2008), the 'Way of the People' was unsuccessful in sharing Indigenous perspectives upon its initial opening.

Opening the National Museum of the American Indian

The newly renamed National Museum of the American Indian (NMAI) opened with its Heye Center in New York in 1994 and the Washington D.C. location at the Capitol Mall in September 2004 (Lonetree and Cobb 2008). At the Washington D.C. opening, there was a dedication and ceremony by Indigenous Peoples and the presence of many spectators (Haworth 2016; Lonetree and Cobb 2008; Turner 2011).

Museological and Public Criticisms of the NMAI

When the NMAI opened, the museological and visitor studies fields had mixed reactions to its exhibition content (Lonetree and Cobb 2008; Turner 2011). Visitors observed the feeling of 'disorientation' between the exhibitions due to an absence of overarching narratives between all themed exhibitions (Lonetree and Cobb 2008; Turner 2011). In creating the individual exhibition designs, curators focused on Indigenous cultural themes, including native foodways and

community concepts of spatial awareness. These exhibits, when altogether, created a disorganized theme of the museum (Turner 2011). There were, however, revolutionary components within these exhibitions as well, with visitors commenting on the presence of a ‘welcome’ video that invited the public into the space and the inviting Indigenous architectural styles within the building itself (Lonetree and Cobb 2008). The NMAI embraced portions of the vast research its staff had created to present Indigenous Peoples as themselves rather than the focus of curatorial collections and preservation. Examples of this include the addition of contemporary Indigenous artists in exhibitions and the gift shop for sale to the public (Lonetree and Cobb 2008; Turner 2011).

Public and local reporters felt underwhelmed by the opening of the NMAI in 2004 (Lonetree and Cobb 2008; Turner 2011). Dr Patricia Pierce Erikson cites the public’s disappointment as the result of the underutilization of the Heye collection in favor of contemporary Indigenous art (Erikson 2008). For the public, the NMAI represented a renegotiated perspective of the Native American, and throughout the exhibition themes, the focus was on the experiences, not the artifacts (Erikson 2008). Many critics were also upset about the physical layout of the museum, the prices for Indigenous art in the gift shop, and the prices of the themed foods in the café area.

While the content of the NMAI is essential for the representation of Indigenous Peoples in museological contexts, the “suffering inflicted on Indigenous Peoples seems to be a closed chapter” (Lonetree and Cobb 2008:30). Despite the amount of consultation and collaboration conducted in the planning phases of NMAI, the institution sided with its founder’s initial message of presenting Indigenous Peoples without addressing the underlying realities of colonization and its impacts on Indigenous history and life in the Western hemisphere.

The narrators in the exhibitions glossed over the American government's actions of conquest, relocation, and genocide on Indigenous Peoples and "fails to tell painful stories and serve(d) to obscure an important message to visitors" (Lonetree and Cobb 2008:311). For Lonetree and Cobb (2008) it was difficult to celebrate the creation of the NMAI when it produced exhibitions that ignore the influence of genocidal policies by the United States government.

NMAI through the years: Understanding and Improving

NMAI, like all museum institutions, understands the importance of visitor feedback and critical scholarly perspectives and has adapted to better represent Indigenous Peoples (Turner 2011). NMAI's 'Community Curation' model was heavily revised after opening (Lonetree and Cobb 2008; Turner 2011). The staff adopted a community collaboration plan centered around crafting a shared narrative. It included a set of shared responsibilities between staff and stakeholders in exhibition design—the new process required community stakeholder approval to begin exhibition construction (Turner 2011). Exhibition curators can work towards a common goal and keep the theme of the museum and exhibitions from becoming disorganized (Turner 2011). This strategy was successful in future exhibitions such as 'Treaties' where Indigenous scholars consulted in a collaborative exhibition about the history of treaties and their effects on Indigenous peoples (Turner 2011). The combined ideas from the Native American Museological Movement and New Museology Movement in aiding improvements to NMAI staff and community stakeholder relationships. The last change in the NMAI institution was the acknowledgment of the underlying framework colonialism that frames narratives about Indigenous Peoples in the United States (Turner 2011). By creating exhibition signage discussing

U.S. policies that negatively affected Indigenous communities, the NMAI eventually conveyed a different American perspective to its museum guests.

'Indigenizing' Curation and Museological Collections

Museums are rooted in Westernized value systems, but the idea of preservation stretches across all cultures and disciplines. The term curator is from the Latin term '*curare*' - to take care and protect. This word can also account for responsibilities such as guardianship and stewardship practices. These acts include Indigenous firefighters conducting culturally prescribed burning practices to preserve biological diversity, cultural specialists recording and managing botanical areas for basket maker communities, and storytellers who tell stories to children to preserve clan identities (Kreps 2009; Padian 2023). Most Indigenous cultures, value both the tangible items and intangible forms of heritage (Kovach 2009). In acknowledging intangible cultural heritage, museum institutions are beginning to create new forms of care (Strunk 2016). For example, Indigenous curatorial methods can assist in protecting both the spiritual and material integrity of objects. Indigenous curation is a form of preserving intangible cultural heritage in order to defend it (Kreps 2009; Strunk 2016). As more museums adopt collaborative tools such as Indigenous curation methods there is a growing shift in Western museological practices away from a focus on objects and towards a focus on people and cultures (Museum of Ethnology 2020).

Museums are rooted in Western epistemologies but museological behavior is a cross-cultural phenomenon (Kreps 2009). Indigenous and Aboriginal museological behavior is cultural heritage preservation and frameworks that support the transmission of cultures and values over time (Kreps 2009). Indigenous models of museums can include architectural structures, such as replicas of long houses in North America, Pacific Islander meeting houses, and the incorporation

of thatched roofing on buildings. These buildings all provide different ways of preserving cultures, from community meeting places for the transfer of knowledge to physical additions to buildings like thatched roofing for temperature control and the presence of smoking practices to prevent mold from deteriorating mold-susceptible items (Kreps 2009).

Examples of Indigenous Curatorial Methods in Denver Museum of Nature and Science

Julia Strunk (2016) and Chip Colwell (National Museum of Ethnology 2020) recorded the diverse ways curatorial staff at the Denver Museum of Nature and Science are integrating alternative ways of curation with their stakeholder communities. Strunk was a master's student whose thesis focused on embracing different ways of 'Indigenizing' by including stakeholder tribes in collection management, exhibition management, and securing jobs for Indigenous Community members in the Denver University Museum.

In her thesis research, Strunk (2016) gathered information through one-on-one semi-structured interviews and notes on interactions among staff, employees, and stakeholder groups. Her research discusses the importance of past and present curatorial methods at the Denver Museum of Nature and Science. The staff discussed the importance of location for the sensitive collections within the museum and how stakeholders advocated for a room housed in a particular limited-access building (Strunk 2016). Honoring special requests from tribes on the care and handling of these collections, including what kind of cloth and paper to wrap the objects in and just letting objects out in the open to 'breathe' occasionally is an important way to Indigenize curatorial methods (Strunk 2016). Specific care instructions resulting from the highest level of negotiation through the limit of access, the lack of research, and detailed care instructions for each artifact is paramount according to one of Strunk's interviewees, Chip Colwell (Strunk 2016).

Visitor Studies

Research in Visitor Studies started in the mid-twentieth century, with museums' growing emphasis on educating the public (Anderson 2019). More recently, museums have expressed interest in visitor feedback due to the rapid decline of funding for public museums. In the late 1980s and 90s, visitor studies expanded from just museum visitors to the public who *might* visit museums (Anderson 2019). Visitor Studies includes research on the motivations, needs, behaviors, and expectations of possible visitors to an institution. Researchers may also be able to educate exhibition design staff, curators, and public engagement staff on what kind of visitor attends their museum. Today, a museum isn't as concerned about retaining visitor numbers as focusing on new strategies to appeal to underrepresented perspectives in exhibition content (Anderson 2019).

Visitor Studies emerged in the 1960s and grew in popularity. The field combines market research, evaluation, and ethnology (Anderson 2019). Visitor Studies grew from the idea that museum visitors are more than passive receivers of text and information (Hooper-Greenhill 1994). Visitors choose what to read, interact with, and when to exit the exhibition. The museum must accurately set displays to 'catch' the guests' attention long enough for them to read the interpretive text. Recordings and surveys of visitor locations and survey feedback can help institutions understand public perceptions of space, and unobtrusive observation can show us what captures and engages their attention. Researchers in Hong Kong surveyed intra-regional tourism by recording participants' movements throughout the Hong Kong region (Lau and McKercher 2006). This study helped emphasize how some attractions appealed to visitors and the average number of days the tourists would reside in Hong Kong.

Timing and Tracking: Visitor Movements

There were some studies of visitor movements in the 1920s by Robinson and again by Melton in 1935 (Yalowitz and Bronnenkant 2009) but research on the timing and tracking of visitors became more popular and evolved in the 1980s with the rise of visitor experience research by Falk and Dierking (Falk and Dierking 2012; Yalowitz and Bronnenkant 2009). In the 1980s, Robert Trotter recorded ‘monster’ time at Wupatki National Monument, in which he recorded interviews with park staff and visitors, observed visitor movement, and researched the busiest ‘times’ in which guests would visit the park the most frequently (Trotter 1989). A few years later, Beverly Serrell published a book on her timing and tracking research called *Paying Attention: Visitors and Museum Exhibitions* (Serrell 1998). The author discussed patterns of visitor time, movement, and hot spots from 110 exhibitions across the United States. Serrell uses a formula to define a ‘Diligent’ Visitor (DV) and a Sweep Rate Index (SRI) to determine the level of visitor engagement and thus an exhibit’s effectiveness (Serrell 1998). Falk and Dierking (2012) have used visitor movement data and interview feedback to create a manual for visitor experience studies called *The Visitor Experience: Revisited* in which they define the importance of visitor identity, intent, and interests.

Museum of Northern Arizona (MNA)

The Archaeology Gallery

The exhibition took a year to create and build from 1979-1980. It was designed by the MNA exhibitions team of Linda Eaton, David Wilcox, Marsha Gallagher, and Robert Breunig. It was a space dedicated to educating the public about popular archaeological terminology at the time. The gallery was reorganized in 1993 to feature newer research and artifacts. The exhibition was funded by the Endowment of the Humanities fund, and consultants include Fred Kabotie,

Helen Sekaquaptewa, Don Talayesva, and Albert Yava. The exhibition is the first space the visitor enters after entering the lobby, and it is situated in a room 15 feet by 20 feet wide.

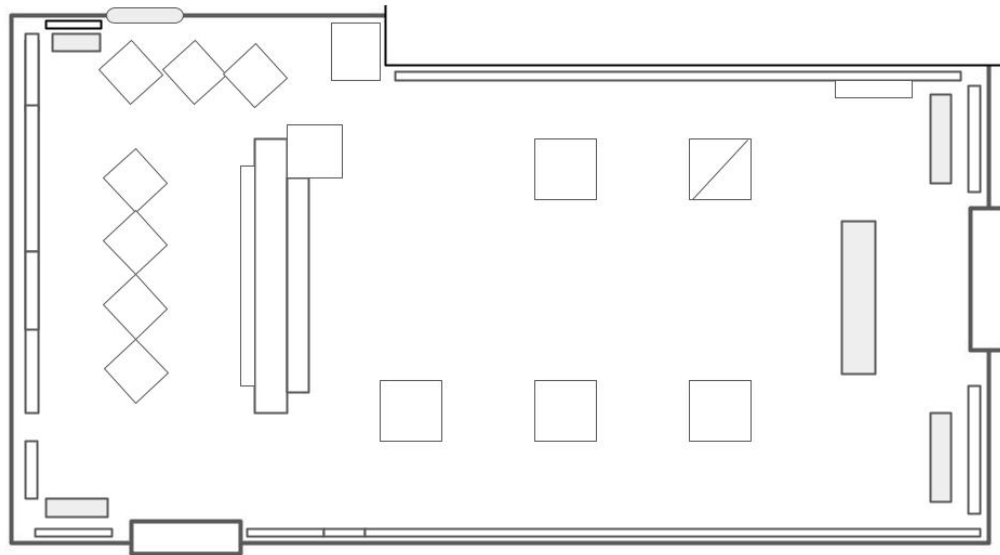


Figure 1: Archaeology Gallery Layout Map

The Native Peoples of the Colorado Plateau Exhibit

In 2018, MNA opened “The Native Peoples of the Colorado Plateau” (NPCP), an exhibition dedicated to the tribal autonomy of Indigenous cultures on the Plateau. Curators developed this exhibition over five years with 43 tribal consultants (MNA 2023). The space is in a long gallery with illuminated glass cabinets on both sides and an interactive table in the center. The surrounding glass wall cabinet areas consist of nine sections, each dedicated to a different tribal community living on the Colorado Plateau. In the middle of the room is an interactive table that depicts holidays, foodways, toys, and games of these cultures. In the entrance area of the exhibit is a video of the consultants greeting museum guests and a map of their tribal lands. This exhibition’s mission is to represent the tribes of the Plateau area in their words and media.

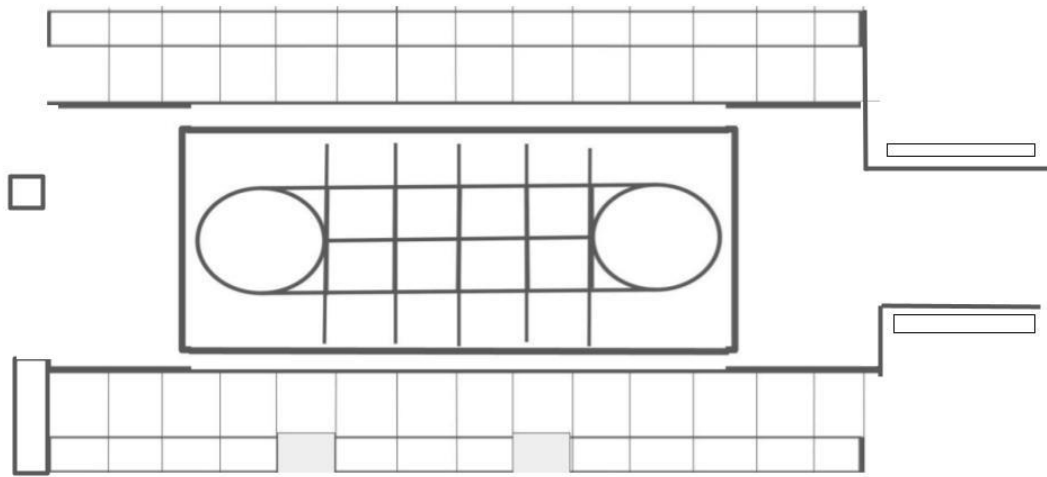


Figure 2: NCPC Gallery Layout Map

The Heard Museum (THM)

The “HOME: Native Peoples of the Southwest Exhibition” was opened in 2004 by the Heard Museum. The gallery intended to inform visitors about the various Indigenous cultures in the region and Mexico. The exhibition took five years of consultation with different tribes and was organized according to the geographical areas of each tribe. The exhibition is 30 by 50 feet wide. Its displays feature the Colorado Plateau and Sonoran Desert Indigenous cultures across Arizona and parts of New Mexico, Colorado, Utah, and Mexico.

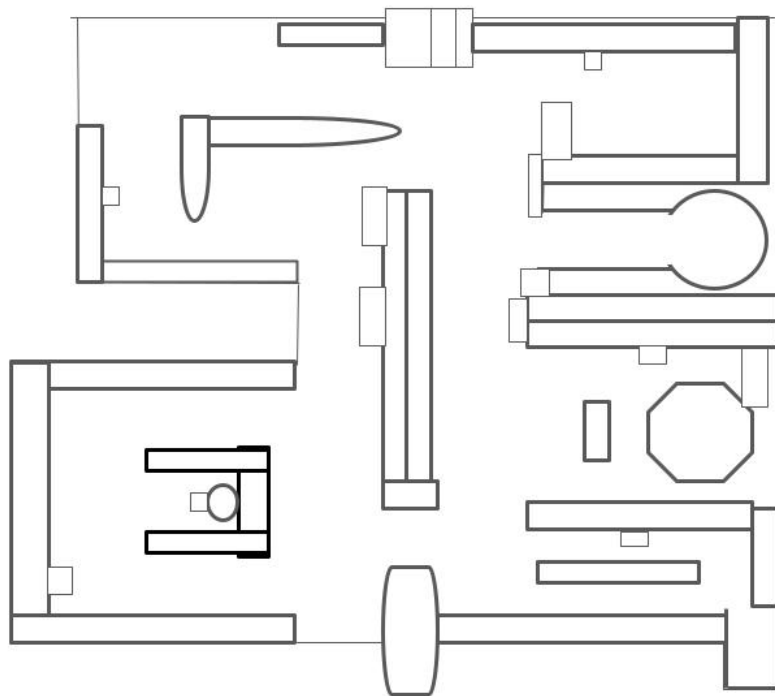


Figure 3: HOME Overview Map

Chapter 3

Theoretical Framework

Multiple theoretical paradigms can help us understand museum spaces. I will utilize three prominent theories in museum studies, anthropology, and visitor studies to understand the museum spaces in my research better. In this chapter, I provide a discussion of New Museology, America's Master Narrative, and the Contextual Model of Learning (CML) to understand museum background, Indigenous stereotypes, and visitor interpretations. The museum field is dominated by imperialistic perspectives that perpetuate myopic research in museum spaces (Clifford 1997; Falk and Dierking 2019; Lonetree and Cobb 2008). The New Museologists questioned the previously turbulent past of museums and sought to improve relations with local communities (Macdonald 2006). This new critical perspective aids in understanding exhibitions and emphasizes the importance of multivocal perspectives in museum exhibition design. Through the integration of Philip J. Deloria's (2015) discussion of America's Master Narrative (AMN) with the work of other Indigenous scholars, I critically examine the use of Indigenous representation and U.S. relocation policies within the three heritage exhibitions. Finally, I use Falk and Dierking's (2012) Contextual Model of Learning to understand visitors' attention at museum exhibitions. The model uses a threefold analysis of cultural, sociocultural, and physical context to attain insight into the museum visitor's absorption of museum content (Falk and Dierking 2012). This framework allows for examining social influences on museum visitors, the influence of physical factors in displays, and museum visitors' identities in free-choice learning in museums.

Old Museology Background

In the past, false racist stereotypes were perpetuated by imperialistic perspectives in museum spaces (Clifford 1997; Lonetree and Cobb 2008). These repositories became popular during the Enlightenment period, and their sole functions were to display the upper class's wealth and power. As colonial powers asserted control over more and more territory, the popularity and number of cabinets of curiosities grew – to collect the world's 'oddities' (Ames 1992; Boas 1907; Clifford 1997). In the eighteenth century, famous anthropologists like Franz Boas sought to redefine museum sciences under anthropology and pushed for these institutions to educate the public and preserve objects. During this time, museology began to take form under the leadership of Franz Boas and the newly established museum studies program at Columbia University (Lonetree and Cobb 2008). Franz Boas had a strong background in museum institutions and wanted to unite curators and exhibitions under a single message about science and education. He integrated the importance of public education and cultural conservation of museum collections. As private collectors, their founders invested their money in creating curatorial buildings for these private collections, which were funded by many wealthy private donors (Pickering 2020). During this period, curators and exhibitors focused on the preservation, collection, and display of its collections. The Museum of Northern Arizona and the Heard Museum were also created at this time and catered to their known audience, the educated white middle class. As Kovach (2009) explains, interpretations of the past at this time were rooted in obstructionism and imperialism (Kovach 2009).

Around the time of the New Age movement of the 1960s and 1970s, many of the founding members of private museums were dying; civil rights movements questioned the perspectives of the academic disciplines of anthropology and museum studies. Movements such

as the Red Power and New Museology movement influenced museums to reconsider the practice of emphasizing research over public outreach and education. As a result, many museums changed their exhibitions to place value on the visitor experience over displaying the perspectives of the elite class. During this time, museological, anthropological, and Indigenous activists such as Ruth Phillips, Philip J. Deloria, and James Clifford rose in popularity because of their critical perspectives and the previous lack of diverse perspectives within museum studies, archaeology, and anthropology. New Museology and Indigenous studies developed out of this time, as both critically questioned the sustainability of embracing older, stagnant Westernized views in these fields. A decade later, public education and choice in accessible learning environments grew, and scholars began to focus on the new visitor demographics attending museums (Falk and Dierking 2019). In the 1980's and 1990's Visitor Studies research indicated that more museums were attended by guests of different backgrounds, countries, and demographics (Falk and Dierking 2019). Through the lenses of Visitor Studies, Indigenous perspectives, and New Museology, museums began to look at exhibition creation and management more critically than they had previously.

Indigenous Theory

Indigenous theory is a framework that includes people, landscapes, and intangible relationships while also critically questioning the perspectives of Westernized thought processes. It acknowledges different epistemological systems, including educational autonomy in storytelling, identity, and presence (Kovach 2019). Indigenous perspectives are vital to my research because they help me critically analyze the presence of Indigenous culture in museum exhibitions. In examining Western academic histories through the framework of Indigenous theoretical perspectives, we can see how museums have preserved the winner's perspective on

historical events (Ames 1992). In the discussion below, I focus on work by Paulette Steeves (2022), Margaret Kovach (2009), Philip J. Deloria (1998, 2018), and Laura Harjo (2019).

Paulette Steeves (2022) is an archaeologist whose research examines the erasure of Indigenous history through the investigation of the amount of time Indigenous Peoples have inhabited the Americas. Her emphasis is on the public knowledge and education that paints Indigenous Peoples' presence in this hemisphere as the result of major migration theories such as the Bering Land Bridge theory (Steeves 2022). She combines her insights on past fieldwork on paleolithic archaeological sites and education to argue that Indigenous presence in the Americas dates back 20,000 years. Steeve's (2022) content analysis of public education concerning the Indigenous settlement of the Americas provides a valuable model to ground my analysis of museum exhibitions featuring Indigenous People.

Margaret Kovach (2009) is an Indigenous scholar who has extensively researched the adoption of Indigenous research methods in collaboration with Indigenous cultures. Her studies explicitly discuss the how word choice can both empower and disconnect in creating collaborative partnerships and projects (Kovach 2009). Her research provides Indigenous ways of knowing, emphasizing stories as knowledge and developing relationships with stakeholder communities (Kovach 2009). Using her research, I can look at how word choice in exhibits empower or erase Indigenous presence.

Philip J. Deloria (1998, 2018) is a Dakota Nation scholar specializing in Indigenous voices in ethnohistorical narratives in public education and media. His father was the prominent Indigenous activist, author, and scholar, Vine Deloria. I used his discussion of 'America's Master Narrative' as a framework for evaluating the relationship between the museums' choices

and the resulting Indigenous presence/lack of presence in the exhibition content at the Heard Museum and the Museum of Northern Arizona.

America's 'Master Narrative' (AMN) is the perspective that minimizes the United States' harmful policies that resulted in inhumane conditions for Native Americans and other historically marginalized groups of people. One consequence of America's Master Narrative is hurtful stereotypes of Indigenous peoples in stories, tales, cabinets of curiosities, and live displays. These inaccurate displays of Indigenous Peoples result in their further disconnection in museum exhibitions. Since the start of colonial contact, Puritans depicted Indigenous peoples as outsiders and as a group to be conquered (Deloria 2015). The AMN supports the white expansionist perspective that enabled Manifest Destiny through genocide and mass removal (Deloria 2015; Steeves 2020). The United States is known as a settler-colonial nation state whose colonial violence is rarely acknowledged or discussed by politicians and in mainstream media. In academia, the AMN framework helps us to see how anthropological and museological experts such as Alfred Kroeber and Franz Boas, contribute to the erasure of Indigenous People by recording Indigenous groups as dying cultures rather than seeking collaborative relationships for a better representation (Lightfoot and Parrish 2009; Steeves 2020).

Deloria (2015) discusses three major components of the AMN that continue the harm to Indigenous peoples: conquest, relocation, and disappearance. Early European depictions of Indigenous Peoples were depictions of the inevitability of disappearing savages in the face of the expansion of American civilization (Deloria 2015). These illustrations of conquest circulated as stories of conquered and tamed 'savage Indians' and their land (Deloria 2015). The enactment of significant U.S. relocation policies such as the Indian Removal Act of 1830,

Indigenous peoples were displaced by force from their ancestral homelands and confined to reservations. Displacement of Indigenous Peoples supports the narrative of disappearance, which contributes to ongoing management of cultural resources as if Native peoples vanished into thin air and are thus unavailable for collaboration (Deloria 2015).

Finally, Laura Harjo (2019) is a Mvskoke scholar who discusses different processes of transferring information through Native Language and storytelling. Harjo has researched the importance of supporting Indigenous viewpoints in sacred landscapes, stories, and artifacts. Her specialty is discussing community-based knowledge production systems (Harjo 2019). I use her application of theoretical research to analyze how these institutions incorporate community-based values into museum organization.

New Museology

New Museology is a framework that calls for acknowledging class, race, and institutional inequalities in museum studies. It is essential to critically consider the construction of exhibit environment versus natural environments within these resources and how interpretations of the institution impact the visitor and vice versa (McDonald 2006). Regardless of how a museum operates, the institution communicates its values through the layout, wording, signage, and media on display. New Museologists questioned the previous turbulent past of museums and sought to improve relations with local communities (McDonald 2006). This includes the inclusion of other perspectives. I will focus my discussion of New Museology on the work of Amy Lonetree (2008, 2012), James Clifford (1997), and Ruth Phillips (2005) to help me understand the layers of consultation and collaboration needed for a successful multivocal museum exhibition.

Amy Lonetree (2008, 2012) is a professor of Humanities and Social science. Her research focuses on past collaborations between Native American tribes and museum institutions

(Lonetree 2012; Lonetree and Cobb 2008). She has conducted extensive research on the opening and reception of the National Museum of the American Indian and has worked with other museums and cultural centers on collaborative projects (Lonetree and Cobb 2008). Her research critiques early consultation guidelines and integrates Indigenous knowledge systems into museums (Lonetree 2012). Lonetree's work enables the examination of possible consultation patterns among her work, the Heard Museum, and the Museum of Northern Arizona.

James Clifford (1997) is an interdisciplinary scholar with backgrounds in anthropology, history of science, and museum studies. His research gained popularity in the 1980's during the decolonizing and New Museology movements (McDonald 2006). Clifford's research focuses on the voices of Indigenous Americans in Museum Institutions and the cross-cultural communication that occurs during these tense encounters (Clifford 1997). Clifford has worked with the Portland Art Museum on repatriation cases and other museums in discussing the diverse types of cross-cultural encounters in free-choice learning institutions (Clifford 2007). Guided by Clifford's theoretical perspectives, I can analyze the information transferred within these exhibitions and how cross-cultural ideas are communicated in these contentious areas.

Ruth Phillips (2005) is a Canadian art historian, curator, and activist who has advocated for more cultural studies in the museum studies profession. Phillips has researched the importance of collaboration in exhibition design and the presence of Indigenous voices within these zones (Phillips 2005). She and Clifford rose to popularity during the New Museology and decolonizing social movements of the 1980's (McDonald 2006). Phillips' work informs my analysis by discussing the value of having the presence of contemporary Indigenous art in museums that directly benefits the stakeholder instead of emphasizing the works of past artists and archaeological artifacts.

The Contextual Model of Learning

Individuals at a museum usually have limited time and will choose to spend time on what draws their focus (Falk and Dierking 2019). There is no quantifiable method to accurately measure visitor interest or motivation for attending museums (Storksdieck 2005), however, Falk and Dierking's 'Conceptual model of Learning' (CML) enables the examination of various aspects of visitor feedback that I can compare to my data. Through the CML, I measured dimensions for a survey, visitor observations, and tracking to isolate social, personal, and physical constructs that influence the visitor in the absorption of information within exhibition spaces. I think that by analyzing the interactions of museum visitors within these spaces within the conceptual framework of learning, I will discuss possible patterns that visitors interpret as they move/interact and give feedback on these three exhibitions in Chapter 5.

Previous Research in Visitor Studies

Historically, research on museum visitors has not had a theoretical foundation (Storksdieck 2005). Previous visitor studies focused on the demographics of potential visitors versus personal contexts such as motivation (Falk and Dierking 2019). The focus on demographics led museums to prepare for the types of visitors who often came into the museums: the white middle class (Falk and Dierking 2019). During the 1980's, as visitor studies research grew, museums shifted from focusing on their most popular audience to concentrating on visitors of all backgrounds (Storksdieck 2005). Understanding visitor motives and learning became important in visitor study research. Falk and Dierking (2019) reorganized their research on visitors to focus on how visitors learn rather than demographics. In their feedback surveys, they found that personal interests, identity, and motivation were the most important motivators for visitors in museum spaces (Falk and Dierking 2019; Storksdieck 2005). Museums are not just

backdrops in transmitting knowledge; they are multidimensional, dynamic learning environments (Barab and Kirshner 2001; Storksdieck 2005). Personal interests and identity are more important than demographic information because visitors are heterogeneous, with diverse backgrounds and cultures who decide to engage in free-choice learning in a facilitated environment. Falk and Dierking (2019) conclude that three contexts influence free-choice learning environments: personal, social, and physical contexts. The combination of these three contexts can affect a visitor's overall learning experience in exhibition areas. In Table 1 below I provide an explanation of the relationship between the Contextual Model of Learning contexts and my own research.

Table 1: Falk and Dierking's (2013) Contextual Model of Learning Factors

<i>Personal Factors</i>	<i>Sociocultural Influences</i>	<i>Physical Contexts</i>
Personal qualities such as prior interests, motivations, and agendas can aid a visitor's movements and absorption within the museum exhibition.	Sociocultural factors can influence a visitor's experience through the presence of tour guides, inner group dynamics, and others outside of the immediate group.	Physical Factors influence a visitor's movements in the exhibition. This includes exhibition design, placement of information, location of interactive displays, architecture, and lighting.
My survey questions will be about the visitors themselves.	My survey questions will ask how their experiences shaped their opinions about the space.	My survey questions will ask about things that stood out and any other comments to add.
Anticipated Result: a deeper understanding of how visitors identify themselves within each exhibition.	Anticipated Result: explore patterns of sociocultural influences on visitors' experiences within these spaces.	Anticipated result: to explore if there are any noticeable or mentionable aspects of the exhibition, good or bad, that can be analyzed.

The framework can assist in unraveling complex interactions and relationships among visitors in personal, sociocultural, and physical contexts. The CML builds a solid foundation for isolating free-choice learning patterns among visitors at museum institutions. It is helpful because I can combine my survey answers with the physical dimensions of the exhibition to understand the visitor experiences within this data and draw upon it in my results. Trying to

record learning outcomes through one measurement is insufficient to capture the significant contextual factors within learning but with the aid of the CML, I can understand patterns behind visitor learning, movements, and feedback to understand visitors better.

I will connect exhibition designs, visitor feedback, and Indigenous representation as I analyze my data through the theoretical framework I establish in this chapter. I will analyze perspectives, information, and presence through the lens of Indigenous scholars' analysis of America's Master Narrative to interpret the theoretical foundations of the MNA and THM exhibits in my study. Through New Museology, I explore relationships between exhibitions with higher collaboration rates to see if they might correspond to higher rates of holding a participant's attention. Finally, the Contextual Model of Learning will help me see if there are deeper patterns to the sociocultural, physical, and personal factors that may influence a visitor's experience in the exhibition.

Chapter 4

Research Methods

I conducted a qualitative and quantitative analysis of three southwest heritage exhibitions in Arizona, two from MNA and one from THM. This included mapping visitor movements, feedback, and observations. My thesis consists of two sets of data: visitor survey feedback and their associated codes and also the numerical data of times, locations, and stops, including average exhibition viewing times, locational time, and number of stops taken within the exhibition.

I measured and drafted maps of the exhibitions, kept a timer, and recorded visitor times at my designated entrance and exit areas. At the end of their time in the exhibition, I asked the participants if they would consent to a short (5-7 minute) survey. On the back of my visitor tracking sheet, I had five interview questions along with a 'yes/no' section for if they would like to be interviewed. Within the data of the three exhibitions, I also isolated the interactions within the exhibit's interactive areas and noted if the participants interacted with these areas. The interactive regions are distributed as follows: one area in the Archaeology Gallery, three in NPCP, and four in HOME. These data allow me to explore visitor movement patterns, survey feedback, and content.

Fieldwork Preparation

Before collecting data, I applied for approval from the IRB Board of Research at Northern Arizona University, the Museum of Northern Arizona, and the Heard Museum. My IRB project title is 'A Detailed Analysis of Southwestern Exhibits,' assigned with the Project number 1928254-1. I received a Minimal Risk letter on July 25, 2022, and was allowed to contact my

projected participant institutions on July 26, 2022. A minimal risk is defined as “the probability and magnitude of harm or discomfort anticipated in the research are not greater than those risks encountered in everyday life” (Oregon State University 2023). To comply with ‘minimal risk’ I could not record any identifying factors about my visitor participants, which include age, race, ethnicity, and sexual orientation.

MNA Preparation

I contacted the Museum of Northern Arizona in late July 2022. I submitted a research proposal through Kelley Hays-Gilpin to the Museum Director and Senior Staff that outlined my research objectives and proposed interview guide. After email correspondence, I attended a research meeting with Mary Kershaw (Museum Director), Samantha Honanie (Visitor Experience Manager), Kelley Hays-Gilpin (Curator of Anthropology), and Kristen Hutchison (Engagement/Marketing Director) on August 1st, 2022.

At the meeting, we discussed researching two exhibits instead of one, including the newly established Native Peoples of the Colorado Plateau (NPCP) and the Archaeology Gallery. Due to the timing of the NPCP opening and mass COVID shutdowns in 2019 and 2020, the MNA staff showed interest in visitor reactions to this exhibit. Mary Kershaw suggested research on the interaction rates of video media and activity tables within space. We agreed that I would not record visitors within tour groups and would take note of all participants who watched the 'Welcome' video at the gallery entrance. At the end of this research meeting, we concluded with approval to start my research, and the projected research dates of the gallery on August 19th, 20th, and 21st for four hours each day for NPCP, and September 9th, 10th, and 18th for the Archaeology Gallery (AG). According to Google Analytics, I planned my research hours around the ‘busiest’ hours, from 11:30 AM-4:40 PM. Google prepares information for its users by

aggregating anonymous data from business locations to formulate when there is the most human traffic in institutions (Google Analytics 2022). A day before my research, I went to MNA and mapped the NPCP space. I constructed a map template of the exhibitions and a back portion for interviews. These half sheets of paper became my ‘cheat sheets’ as I would fill the form with information such as identifier variable, entry/exit time, number of stops, timing of stops, and small arrows for small movements and large arrows for more significant actions. First, I mapped each exhibition physically the day before I could conduct fieldwork. For MNA, I mapped the NPCP Gallery on August 18th, 2023, and the Archaeology Gallery on September 20th, 2023.

Figure 4: Finished Movement Map for the Native Peoples of the Colorado Plateau Gallery (Map not to scale).

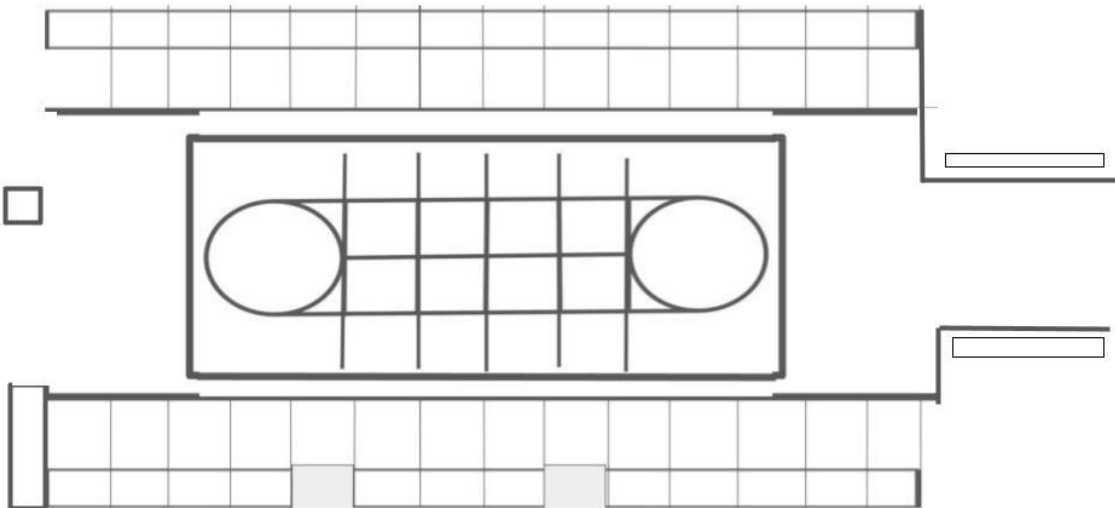
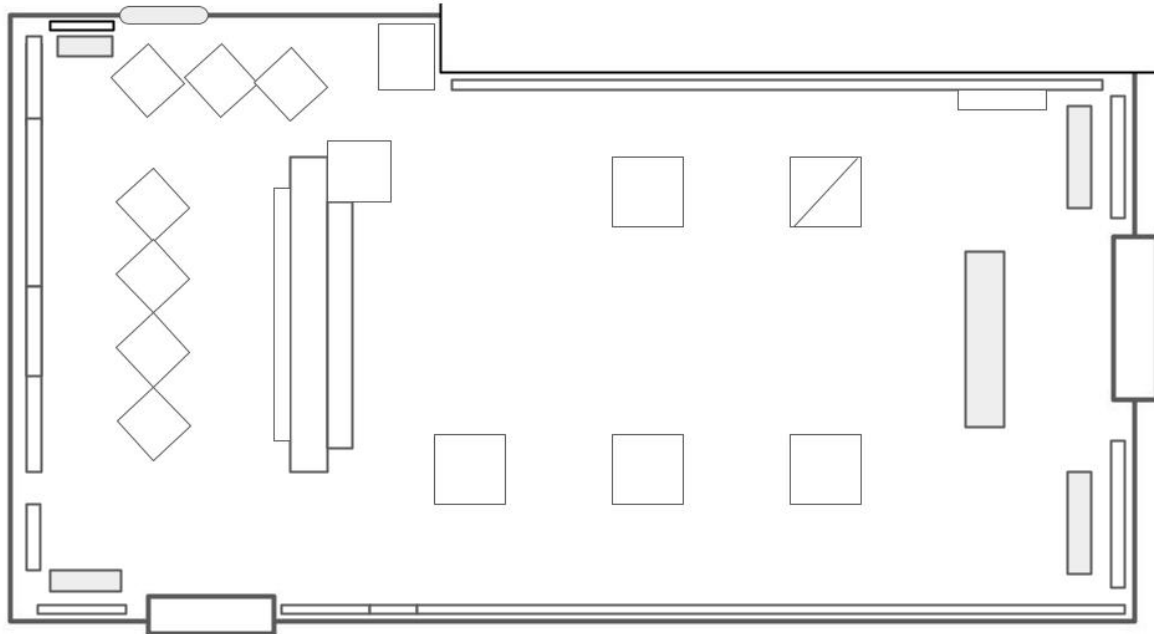


Figure 5: Finished Movement Map for the Archaeological Gallery exhibit (Map not to scale).

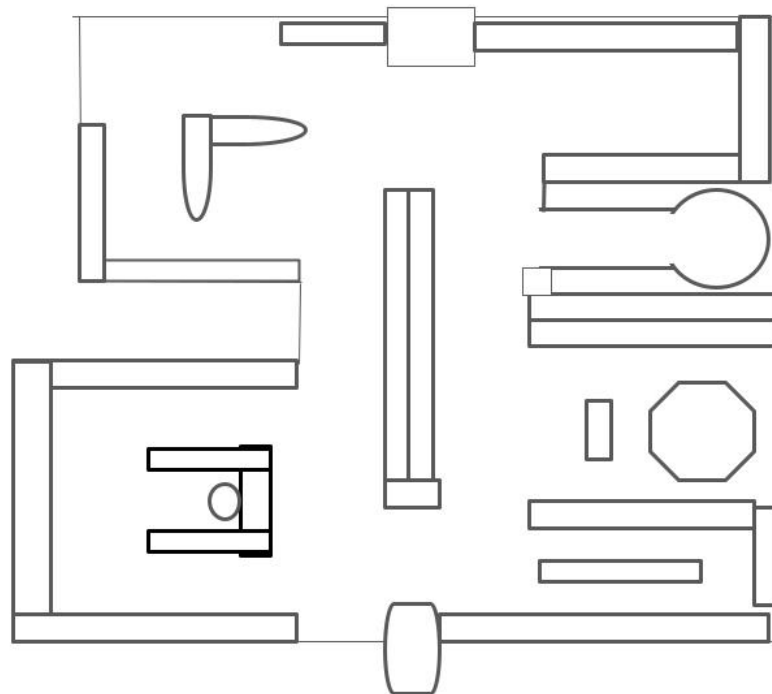


The Heard Museum Preparation

To conduct research at the Heard Museum (THM), I contacted one of the curators, Diana Pardue, in mid-June requesting approval for research, and she forwarded me to the Director of Engagement and Public Learning, Jeff Goodman. Mr. Goodman and I had two online Zoom meetings, each lasting 30 minutes, where we outlined my research methods and objectives. I discussed the dates and type of research I would be recording participants on, specifically movement, interaction, and exit/entrance areas. On September 13th, 2022, I had a follow-up meeting with Jeff Goodman to confirm research dates and times and to determine if I required any assistance. I received confirmation that my assistant, Sheena Glasgow, and I would be able to spend time in the exhibition drafting my spatial code map on Thursday, September 29th, 2022,

and conduct research at the HOME exhibition on Saturday, October 1st, 2022, from 12-4 pm and Sunday, October 2nd, 2022, from 11-4 pm.

Figure 6: Finished movement map for HOME Exhibition



Qualitative Methods

I defined my ‘entrance’ and ‘exit’ areas in consultation with the MNA Visitor Experience manager, Samantha Honanie. At THM, I could not coordinate with staff where the exit was, so I placed my ‘exit’ as a threshold between the exhibition and the theater room. At the MNA, I kept the participants within eyesight and recorded their movements on a clipboard. At THM, I had to track one individual at a time, and my assistant, Sheena Glasgow, alternated between recording visitor movements and observations. At the MNA exhibits, I got 66 participants at NCPC, 66 at AG, and 17 at the Heard Museum. Table 2 is my interview question guide that I submitted on my IRB application and was shared with both participating institutions.

Table 2: Table of Proposed Survey Questions

Question	Justification
Can I interview you?	(Basic Yes/No, asking for consent, added ‘doesn’t speak English after NPCP.)
What stood out to you in this exhibit?	What held the participant’s interest in the exhibition?
Is there anything you liked in this exhibit?	It gives the participant a chance to vocalize positive feedback.
Is there anything you disliked in the exhibit?	It gives the participant a chance to vocalize negative feedback.
Is there anything that made you feel uncomfortable in this exhibit?	Allows the participant to vocalize any text or visuals that made them uneasy; this can be anything, such as text, visuals, or displays within the exhibition.
Is there anything you would like to add?	Is there anything else worth mentioning for feedback for the institution and research?
Thank you for your time.	Close the Interview and thank the participant.

Quantitative Coding Methods

I created movement maps of the exhibit to help serve as a foundation for mapping visitor movements throughout these spaces. By recording visitor placement and focus within these spaces, I could record patterns of interaction and flow within these areas. By creating a map of each exhibit, I will have a checklist of displays to record, and I can use the map as a template for the visitor movement section of my methods. I created a quick sheet that included a map of each exhibition and, on the back, the set questions for the exit interview.

Qualitative Coding Methods

I coded visitor feedback based on coding answers based on two categories. The first was tone. This included if the tone of the overall feedback was positive, negative or a mix of both. This coding was important as it established context in my visitor’s feedback codes. After, I coded participants’ discussion of certain themes, I would code feedback under generalized answers. As an example, one participant commented on the ‘Beautiful displays’, that became the code ‘Display of cultures’ and ‘Beautiful’. As participants discussed in more depth certain feedback, I

created multiple categories of connected yet different codes. This included participants discussing the themes of ‘genocide’ and mentioning ‘mistreatment’ and ‘relocation’. As these specific codes appeared in participant feedback, I counted them numerically and made note of their context.

Data Collection

Native Peoples of the Colorado Plateau Exhibition. I conducted primary data collection of 66 random participants at the Native Peoples of the Colorado Plateau exhibit. I recorded this information using a clipboard, pen, and stopwatch to record timed ‘checkpoints’ when visitors stopped and moved throughout the space. I designated a ‘start’ area, which was the hallway on the northern side of the gallery. As the individual moved throughout the space, I recorded numerical ‘stops’ for their checkpoints on August 19th, 20th, and 21st. I positioned myself at the southern end of the exhibit with a clipboard, recording the time as the participant passed the southern doorway. I recorded 28 Participants on Friday, August 19th, 21 on Saturday, August 20th, and 13 on Sunday, August 21st, 2022. Out of this group, I recorded 20 feedback interviews: eight interviews on Friday, six on Saturday, and six on Sunday.

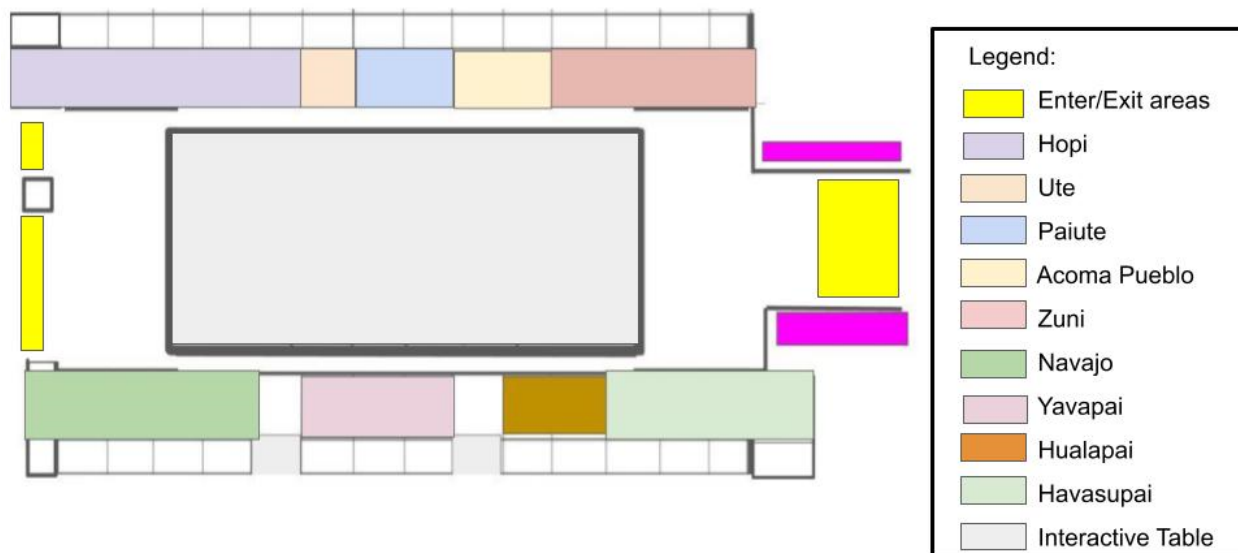
The Archaeology Gallery. I collected the movement data of 36 participants and four interviews at the Archaeology Gallery. I recorded this information with a pen clipboard and a stopwatch. I watched individuals enter the exhibition and record when they passed through the exit area. Due to the exhibit's shape, I could not stay positioned in the ‘exit’ area and record all the participants’ movements, so I could not ask 15 of my participants for interviews. I conducted my research and recorded 14 participants and two interviews on Friday, September 9th, 11 participants and two interviews on Saturday, September 10th, and 14 participants and 0 interviews on Sunday, September 18th, from 11 am-4 pm.

Home: Native Peoples of the Southwest. My assistant and I recorded 17 participants at the Home: Native Peoples of the Southwest exhibit. Of these 17 participants, we recorded the observations of 7 participants. Unfortunately, my proposed exit area was not the actual exit area but a dead end, so I could not gather exit interviews for this fieldwork. However, my assistant and I recorded and observed these individuals, and I coded these observations the same way I coded my interview answers.

Methods Digitization for Analysis

After recording visitor movements and interactions in each exhibition, I reviewed each exhibition and coded the different display areas. Some of the exhibition areas had interactive areas, and I noted if each participant interacted within these areas.

Figure 7: Native Peoples of the Colorado Plateau Final Spatial Coding Chart

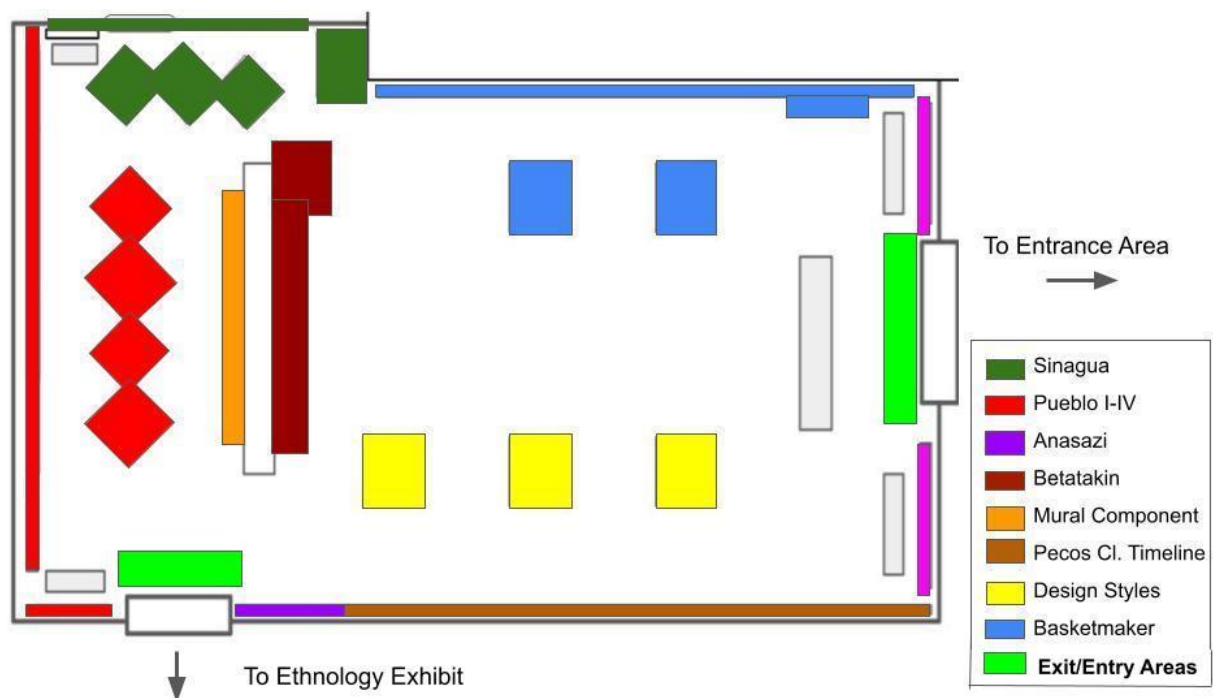


Native Peoples of the Colorado Plateau

I decided to divide the exhibitions into 12 different codes based on the existing themed displays; these are: Enter/exit areas, Hopi, Ute, Paiute, Acoma-Pueblo, Zuni, Navajo-Dine,

Yavapai, Hualapai, Havasupai, Interactive Table, and Introduction/Video Area. In this exhibit, I wanted to isolate all themed display areas, the interactive table, and the introduction area where the video is located. For my coding chart, I separated whether each participant could watch the exhibit video and if they interacted with the central interactive table displaying all cultures on the Colorado Plateau.

Figure 8: Archaeology Gallery Final Spatial Coding Chart

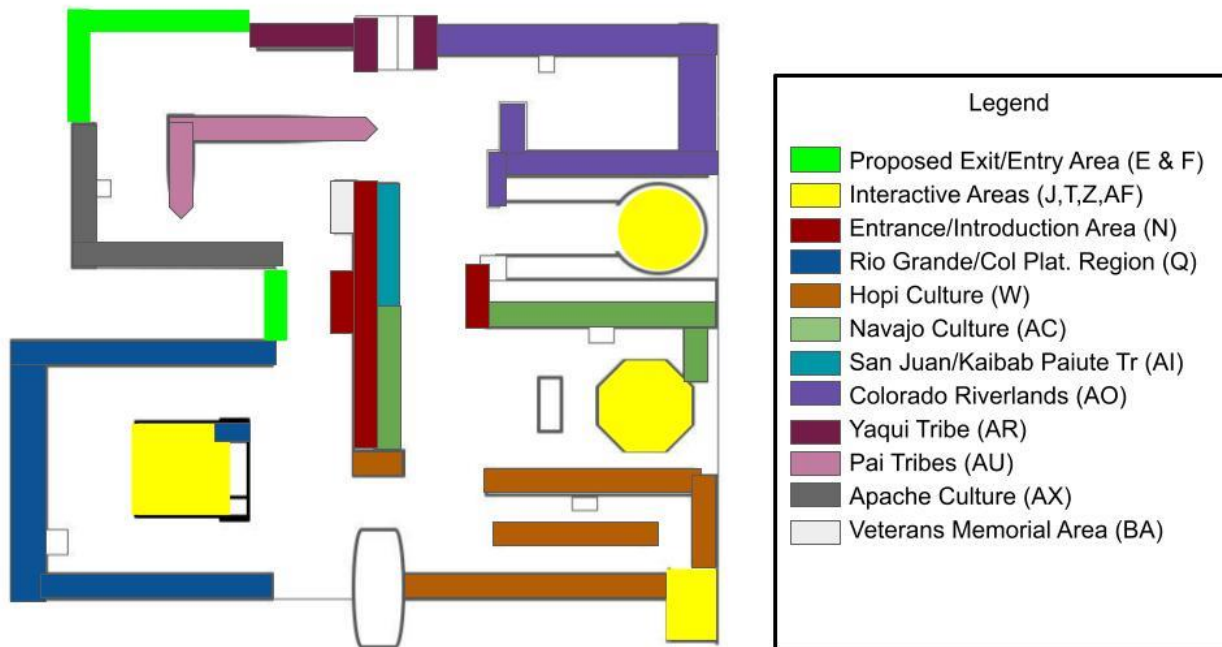


Archaeology Gallery

I coded 11 different areas, which include entrance/exit areas, introduction area, Sinagua Area, Pueblo I-V area, Anasazi Display, Betatakin, Awatovi Mural Component, Pecos Classification Timeline, Design Styles, and Basketmaker/Pecos Classification South Wall. For this coding chart, I isolated the interactive QR code within the Betatakin display as its variable to see how many participants were scanning and downloading the optional video about the present

descendant communities. This exhibition was similar to the NPCP Gallery; however, the wall featuring the mural and Betatakin made it challenging to be unobtrusive and record the participants' movements.

Figure 9: HOME: Native Peoples of the Southwest Spatial Coding Chart



HOME Exhibit:

I decided to divide the displays into 13 themes introduced in the gallery. There are 13 themes, but within the Interactive Areas theme, there are four additional variables: the Pueblo Oven Area, the Piki Room Area, The Hogan, and The Video Room. My proposed ‘exit’ area in the HOME exhibit turned out to be a not conducive for asking participants for exit interviews. Instead, my assistant and I observed the visitors' comments and conversations. We recorded their exit if they exited through the dead end, the entrance area, or the side exit door between the Hopi and Rio Grande Displays.

Participant Survey Feedback Coding Table:

I coded each survey interview using codes I observed in the responses. After reviewing all interviews, I had a total of 44 codes. The first sorted category was whether the survey response was positive, critical, or mixed. This was the most crucial way to determine how to code each interview; after that, I assigned a set of numbers for each participant's feedback; in the end, this was all the 45 results I could code.

Table 3: Participant Feedback Codes Table

Jewelry	Peoples used in Past Tense
Exhibition Content	Religious Practices
No/Nope	Interactive Area
Video	Broken Exhibition Components
Missing Information	More stories
Basketry	Timeline food cans
Navajo Rugs	Senior Rates
Auditory Aid	Tour Guides
Genocide	Tribal Autonomy
Color	Tribal History
Display of Cultures	Anasazi/Ancestral Puebloan Word
Enjoyed Everything	Learning Experience
Beautiful	Avoidant of Tour Group
Indigenous Contemporary Art	Too much Text
Confusion about Exhibit Exit	Forced Removal
Better than old display	Wanting more (overall content)
Mistreatment	Uncomfortable
Want to bring others	OR Code
Supplemental Exhibition Pamphlet	NPCP (Overall)

Chapter 5

Research Results

In this chapter, I present my findings from research examining the movement patterns of tourists in the NPCP and AG Gallery at the Museum of Northern Arizona and the HOME exhibit at the Heard Museum. My research focused on the movements of fully independent visitors within these exhibits during the weekends of August 19th-21st 2022, September 17th-19th, 2022, and September 30th-October 2nd, 2022. All three exhibitions range drastically in content, funding, size, and message. I will discuss my findings about each exhibition and then compare synthesized data with B. Serrell's visitor tracking database. I have separated the results into the MNA and THM sections. Each section contains the results for each gallery. Within each result section, I have formatted my data into tables. The first table is the gallery totals, including the hours surveyed, participant visitor movements, and visitor feedback surveys.

Data Digitization

I recorded a timestamp of every movement of all participants in the gallery. Figure 10 is an example of how I recorded movement through the exhibit galleries. In Figure 10, I highlighted each participant I registered in lime green. The information above this stop shows data organized by row number and letter column (i.e., Q334 for 1st stop) and the number of stops, highlighted in yellow. For every timestamp on my quick sheet, I wrote the number on the map in the location of where each person stopped. Calculating average time and differences in length of visitor stops allowed me to calculate the total amount of time each individual spent in the exhibit.

Figure 10: A copy of my quick sheet for Participant 46

Individual Mapping & Intercept Interview Feedback

Museum Name: MNA R333

Date: 08/26 46

Exhibition Name: Ethnology

Entered: 1:08:21:00

Exit: 1:13:08:00

Q 1 334 A0335 2 1:10:10 3 1:10:50 4 1:11:15 5 1:12:17

A0336 A0337 A0338 A0339

Data Digitization

Figure 11 features a screenshot of my excel database. I recorded each stop a participant took as a single row. For columns, I included the variables of start and stop times, averages, and each display area as their columns. After all my times were recorded in Microsoft Excel, I calculated the average exhibition viewing time through the TIME formula on Excel TIME, followed by the cell of the data. Calculating average time, and differences in length of visitor stops allowed me to calculate the total amount of time each the individual spent in the exhibit.

Figure 11: Copy of JLG Database

D1 ⌵ ✖ ✓ <i>fx</i> AE time												
	A	B	C	D	E	F	G	H	I	J	K	
1		EnT	ExT	AE time	AE Fraction	Video?	Day	# of Stops	Entrance Area Ckpt	Total Time	EA Fraction	Zuni C
59												
60	11	0:49:30	1:01:48	0:12:18	20.3	1	0	9				
61									12:50:08 AM	0:00:38	1.00	
62									12:51:38 AM	0:01:30	2.20	
63												
64												
65												
66												
67												
68									1:01:08 AM	0:00:45	0.75	
69	12	0:08:50	0:18:16	0:09:26	15.4	1	0	8				
70												
71												
72												
73												
74												
75												
76									12:16:39 AM	0:00:35	0.60	
77	13	0:15:10	0:21:58	0:06:48	10.8	2	0	7				
78												
79												
80												
81												
82												
83												
84	14	0:11:45	0:24:18	0:12:33	24.6	2	0	10				
< > NCPC +												

The gallery totals table (Table 4) indicates the total amount of hours, participants, movements, and visitor surveys I recorded in the NPCP Gallery. I conducted fieldwork in NPCP for 12 hours and recorded 65 participants. During my time in the gallery, I recorded 486 visitor movements and received 20 total visitor feedback surveys. During my time there, the Participants, on average, spent an exhibition viewing time of 33 minutes and 33 seconds. The average amount of visitor movements was 7.36, and the rate of diligent visitors was 69%. The averages table (Table 5) shows the averages of visitor movements, exhibition viewing times, and the average diligent visitor rates.

Table 4. Native Peoples of the Colorado Plateau Gallery Totals:

Total Number of Hours Conducting Fieldwork	12 Hours
Total Number of Participants	65
Total Number of Visitor Movements	486
Total Number of Visitor Feedback Surveys	20

Table 5. Native Peoples of the Colorado Plateau Gallery Averages:

Average Visitor Time	33 minutes 13 seconds
Average Amount of Visitor Movements	7.36 movements
Average Amount of Diligent Visitors to Exhibition	46/66 participants, 69%

Gallery ‘hot spots’ and ‘cold spots’ (Tables 6 and 7) are the areas that visitors stopped at the most and the least. The top three themed areas in each table are ranked from “1st to 3rd”.

Table 6. Native Peoples of the Colorado Plateau ‘Cold spots’

Display	Percentage of Stops	Number of Stops
Ute Display	2%	13/486
Acoma Pueblo Display	3%	18/486
Paiute Display	4%	19/486

Table 7. Native Peoples of the Colorado Plateau ‘Hot spots’

Display	Percentage of Stops	Number of Stops
Interactive Table	29%	141/486
Zuni Display	10%	52/486
Entrance Area/Video	10%	50/486

The following table (Table 8) illustrates the percentage of museum visitors who interacted with the coded interactive areas in each exhibit. Each gallery has one to four interactive areas; visitors were noted if they interacted or entered these areas.

Table 8. Native Peoples of the Colorado Plateau Gallery Interactive Areas

Exhibit Area	Percentage of Participants	Number of Participants
Interactive Table	64%	42/66
Entrance Video Area	70%	46/66

Every individual's stop was assigned to a different row. In the end, I calculated the total number of stops through Microsoft Excel. One of the biggest attractions within the exhibition is the Entrance Video Area and the Interactive Area. Both exhibitions have the highest number of stops compared to the exhibit's hot and cold spots.

In the visitor feedback section, the first category I created for the interviews was the overall total number of participants, and out of the totals, how many of the interviews had a positive tone, a critical tone, or a mixed tone. The feedback was either positive, critical, or mixed for most of my interviews. The final table in each gallery is the top-coded feedback recorded for each of the five survey questions.

In my discussion section, I discuss patterns and differences in my data compared with established research from Beverly Serrell and contextual modeling with my feedback codes. The feedback data was coded numerically. Every time a participant mentioned a specific subject's answers, I would make a note of that code (i.e., 'auditory aid' and 'forced removal'). When I noticed that some answers were not on my code list, I would create new coding categories.

Reviewing my data, I tallied every time a visitor mentioned a specific code. I decided to code and define my codebook which included 44 codes. For this section, I am sharing the frequencies of how many codes occurred and which of my feedback survey questions had the most popular feedback answers.

Within the NPCP ‘hot spots’ category, the interactive table had 29% of total stops, the Zuni Display had 10% of complete stops, and the Entrance Area/Video had 10% of total stops. The Interactive Table is in the middle of the exhibition and is well-lit with eye-catching content. The Interactive Table consists of items like jewelry and large overview pictures of the San Francisco Peaks and the Grand Canyon. The Zuni Display is on the direct right of the exhibition as the visitor walks in. Falk & Dierking’s research showed that most participants naturally begin on the right side when visiting an exhibition (Falk and Dierking 2012). The third-place “hot spot” display is the Entrance Area/Video area, which grabs visitors' attention right as they walk into the space. ‘Cold spots’ consisted of areas within the exhibition cabinets towards the middle of the gallery. These include the Ute Display, the Acoma Pueblo Display, and the Paiute display. This is a regular occurrence with exhibition design. Visitors overlook the middle portions of galleries. They have a lower rate of visually catching’ visitors' attention (Serrell 2019).

The last section is the NPCP rate of interaction within its gallery areas (Table 9). This is calculated by if each visitor interacted and stopped in a section for longer than a second. In NPCP, 42 of the visitors stopped and interacted with the video, while 46 participants also interacted with the interactive exhibit table. I think this exhibition has well-placed interactive areas in well-lit areas that successfully catch the visitor’s attention.

Table 9. Native Peoples of the Colorado Plateau Gallery Feedback

Total Number of Participants	Positive Survey Feedback	Critical Survey Feedback	Mixed Survey Feedback
20	16	1	3

Native Peoples of the Colorado Plateau Survey Participant Feedback Discussion

For the feedback results of NPCP, feedback was positive overall, with 16 positive surveys, three mixed surveys, and one critical survey. Visitors enjoyed the attention to detail, the displays, and the imagery within each tribal section of NPCP (Table 10). The next most common answer was ‘forced removal’. Many participants commented that this was the first they had learned about Indigenous Peoples affected negatively by U.S policies involving forced removal. This answer about feeling uncomfortable appeared again in question number 3. There was a substantial amount of feedback to the questions about the exhibition being a ‘learning experience’ and the enjoyment of ‘Indigenous perspectives,’ This directly ties into other answers in other sections. Visitors in this section felt they were learning about displays of cultures, Indigenous contemporary art, and U.S. removal policies in this exhibition.

Table 10. Native Peoples of the Colorado Plateau Top Feedback Codes

Q	#1 Ranked Codes	#2 Ranked Codes	#3 Ranked Codes
#1	‘Display of Cultures’, 6/20 Participants, 30%	‘Forced Removal’ 5/20 Participants, 25%	‘Beautiful’ ‘Indigenous Spirituality’ 3/20 Participants, 15%
#2	‘Indigenous Contemporary Art’ 6/20 Participants 30%	‘Interactive Table’ 5/20 Participants 25%	‘Better than old display’ 3/20 Participants 15%
#3			11-way tie

	‘Nope’ 14/20 Participants 70%	‘Better Understanding’ ‘Learning Experience’ 2/20 Participants 10%	‘Mistreatment’ ‘Exhibition Content’ ‘Uncomfortable’ ‘Beautiful’ ‘Better than old Display’ ‘Exhibition Paper handout’ ‘Enjoyed Everything’ ‘I want more.’ ‘Exhibition Components are broken.’ ‘Auditory Aid for Exhibition’ ‘Beautiful Detail’ 1/20 Participants 5%
#4	‘Nope’ 11/20 participants 55%	‘Forced Removal’ ‘Exhibition Content’ ‘Genocide’ 2/20 Participants 10%	16-way tie ‘Uncomfortable’, ‘Components broken’ ‘Better than old display’ 1/20 Participants 5%
#5	‘Nope’ 8/20 Participants 40%	‘Better than old Display’ ‘Beautiful’ ‘Enjoyed Everything’ 2/20 Participants 10%	‘Navajo Rugs’ ‘Exhibition Content’ ‘Better Understanding’ ‘Learning Experience’ ‘Well Written’ ‘Video’ ‘Enjoyed Everything’ ‘Indigenous People’s Spirituality.’ ‘Pottery’ ‘Display of Cultures’ ‘Exhibition Paper Handout’ ‘Auditory Aid for Exhibition’ ‘Forced Removal’ ‘Want to bring others.’ ‘Interactive Table’ ‘Beautiful Detail’ 1/20 Participants 5%

Another essential pattern to note is that all critical feedback interviews conducted mentioned the importance of exhibition maintenance and additional informational aid. For

exhibition maintenance, visitors commented on the broken screens and the broken sound cones over the table area. For auditory aid, most visitors asked for volume control for the TV, additional exhibition components, and the need for supplemental information handouts.

Archaeology Gallery Tracking Data Results

In the Archaeology Gallery, I had a participant size of 38 participants for my movement data and 8 participants for survey feedback. The average visitor time in this exhibition was 8 minutes and 19 seconds, the average number of stops was 8.3, and 65% of Diligent Visitors were present (Tables 11&12).

Table 11. Archaeology Gallery Totals

Total Number of Hours Conducting Fieldwork	12 Hours
Total Number of Participants	38
Total Number of Visitor Movements	259
Total Number of Visitor Feedback Surveys	8

Table 12. Archaeology Gallery Averages

Average Visitor Time	8 minutes 19 seconds
Average Amount of Visitor Stops	8.3
Average Amount of Diligent Visitors to Exhibition	25/38, 65%

Archaeology Gallery ‘Hot spots’

In the Archaeology Gallery, the ‘hot spots’ consisted of the Pecos Classification North Wall, the Pecos Classification South Wall, and the Pueblo I-V Area (Table 13). The Pecos Classification North wall is on the direct right upon entry, a popular spot to visit when entering an exhibition (Falk and Dierking 2012). The Pecos Classification South wall is one of the biggest panels on the south exhibition wall. It is accompanied by ample light from the windows and light

fixtures in the exhibit. The Pueblo I-IV area is a large, well-lit area on the east wall with accompanying glass cases. In the afternoon, the area is well-lit by natural light and light fixtures above it to aid the visitor in reading.

Table 13. Archaeology Gallery Hot Spots

Display	Percentage of Stops	Number of Stops
Pecos CL North Wall	23%	59/259
Pecos CL South Wall	18%	46/259
Pueblo I-IV Area	16%	42/259

Archaeology Gallery ‘Cold Spots’

The ‘cold spots’ in the exhibition were the ‘Anasazi’ Display, the ‘Awatovi Mural,’ and the ‘Design Styles Cases’ areas (Table 14). The Anasazi Display is located right next to the exit, and several times during my survey, I observed that when visitors drew near to the Anasazi Display, it was directly within the eye line of the NPCP Gallery Entrance. During my data collection in AG, 12 of the 38 visitors would skip the end of the South Pecos Wall and Anasazi Display areas to walk straight into the NPCP Gallery to observe the ‘Welcome’ Video at the entrance area.

Table 14. Archaeology Gallery Cold Spots

Display	Percentage of Stops	Number of Stops
Anasazi Display	1%	3/259
Awatovi Mural Display	2%	7/259
Design Styles Cases	6%	17/259

The Awatovi Area is a mural taken from a Hopi kiva on the opposite side of the Betatakin wall. It was excavated in 1939, and archaeologists used a fragile fabric to mount the painted plaster layer onto a sheet of muslin fabric and then transferred it to a wooden board. Due

to its fragile condition, it is displayed with a soft light to prevent pigment damage. With no direct, intense light illuminating the wall, the mural is less eye-catching than the well-lit windows and other lighting on the other walls.

The last area is the ‘Design Styles’ cases, a series of glass cases in the middle of the exhibition in the middle of the North and South Pecos Classification walls. These cases consist of two rows of vertical glass squares with text and pottery pieces. This area is not as well-lit as the other displays, as the skylights only illuminate these areas briefly in the morning. Due to the lack of light and the transparent nature of the glass, many of my participants did not interact with the central area of the exhibition.

Archaeology Gallery Interactive Area Feedback

During my time recording participants in the AG, I would write down if the individual read the QR sign or if they scanned the code (Table 15). I thought this would be the best way to record this interaction since not everyone checked the QR code, but many read the sign or took out their phone to scan the QR code for later. The sign was on top of the Betatakin display with a large, coiled basket. The display is located next to the window and has a good amount of light. The addition of afternoon light on the north wall created a successful display for visitor interaction in my study. 31% of all participants recorded interacted with the QR code sign.

Table 15. Archaeology Gallery Interactive Areas

Exhibit Area	Percentage of Participants	Number of Participants
Betatakin QR Code	31%	12/38

Archaeological Gallery Survey Participant Data

During my time recording participants in the Archaeology Gallery, I recorded a total of seven surveys. In Table 16, out of seven participant feedback surveys, three surveys were positive, one survey was critical, and three surveys consisted of mixed feedback (Table 16).

Table 16. Archaeology Gallery Feedback

Total Number of Participants	Positive Survey Feedback	Critical Survey Feedback	Mixed Survey Feedback
7	3	1	3

Archaeology Gallery Feedback Results

Most participants commented on the beauty of the colors, displays, and pottery within the gallery (Table 17). The other popular answers for my survey questions in this area were ‘No/Nope’, ranging from 41-72% of all answers (See Appendix A). Another set of popular feedback codes were the answers for what visitors liked about the exhibition, which included ‘QR’ Codes’, and ‘Pecos Timeline Food.’ ‘Display of Cultures’, ‘Enjoyed Everything’, ‘Pottery’, and finally, ‘No’.

Table 17. Archaeology Gallery Top Feedback Codes:

Q	Top Answer Codes	#2 Ranked Codes	#3 Ranked Codes
#1	‘Pottery’ 4/7 Participants 57%	‘Jewelry’ ‘Color’	N/A
#2	‘QR’ Codes’ ‘Pecos Timeline Food’ ‘Display of Cultures’ ‘Enjoyed Everything’	N/A	N/A

	‘Pottery’ ‘No’ 1/7 Participants 14%		
#3	‘No’ 3/7 Participants 42%	‘More Stories from Peoples’ ‘Pecos Timeline Food’ ‘Senior Discount’ ‘Misinformation’ 1/7 Participants 14%	N/A
#4	‘No’ 3/7 Participants 42%	‘Misinformation’ 14%	N/A
#5	‘No’ 5/7 Participants 71%	‘Too much Text’ ‘More Stories from Peoples’ 1/7 Participants 14%	N/A

Comparing Results: Archaeology Gallery and Native Peoples of the Colorado Plateau

These exhibitions are around the same size, have the same amount of exhibition content, were built by the Museum of Northern Arizona, and were created four decades apart. The result comparison between the two exhibitions is compelling. We can see that visitors spend a longer average of time and stop more in the NPCP Gallery. Most of the criticisms of the gallery are general fixups and audio/auditory aids for the videos and sound portions.

The Diligent Visitor rates in both exhibitions were around 65-69 percent. Visitors stop at different themed displays and look at everything. The average number of stops and time in the exhibitions are very different.

Timing and Tracking Data

When comparing participant timing and tracking data, both exhibitions have vastly different amounts of exhibition average time and number of visitor movement stops. NPCP has an average exhibition viewing time of 31 minutes and 3 seconds, with 486 total stops, while AG has an average of 8 minutes, 19 seconds, and 259 total stops.

B. Serrell has researched that if an exhibition has many visitor stops but a low average time, the visitor is ‘shuffling’ through the exhibition (Serrell 2019). This indicates that the exhibition, although attracting visitors, cannot hold the visitor’s attention for a long time.

Another similarity between NPCP and AG is the high Diligent Visitor rates that both exhibitions attracted. MNA is a highly reputable research center in Arizona, and I think it attracts a large audience who want to learn more about the Colorado Plateau. The high percentage of visitors indicates that visitors attracted to the MNA is high. Still, the displays in the AG fail to retain as many diligent visitors as the NPCP does.

‘Hot Spots’ vs. ‘Cold Spots’

The amount of traffic an individual displays directly depends on the location, brightness/outside light sources, and overall area design. In NPCP, the Interactive Table and the Entrance Video Area are in the public’s eyesight, well-lit, and well-designed to keep visitors’ attention. In AG, the most attended displays are also in direct light, with some outside light designed to retain the audience’s attention.

Feedback Data Questions

The ‘critical tones’ category varied in the two exhibits at the MNA. In NPCP, critical advice concerning topics about exhibition components fixes up to the need for auditory aid. In AG, critical feedback was from people criticizing the overall content of the Exhibition. One participant called the exhibition full of misinformation; another talked of the “need for individual perspectives and stories (P79) ”.

One typical shared response between the participants at the NPCP and AG was that many different individuals commented on the presence and absence of Indigenous Voices. In the NPCP gallery, Participant 59 stated, “I really enjoyed the stories that these people shared about

themselves; it helped me understand the local Native cultures (of the Colorado Plateau) (P59)”.

Participants enjoyed the Native and Tribal Nation first person perspectives and consultants.

In the AG Gallery, Participant 94 stated, “I want more stories about people, from Native people, this room feels so quiet compared to (NPCP) (P94).” A few of the participants in the AG felt underwhelmed by the AG's content in comparison to the NPCP. AG Participants commented on the lack of Indigenous stories in the space and noted the perspectives and individual voices in the NPCP Gallery.

HOME: Native Peoples of the Southwest Results

While conducting fieldwork at the Heard exhibit, my assistant Sheena and I recorded the movement data of 17 participants and the observations of twelve out of the total twenty-two participants (Tables 18 & 19). Due to the extensive exhibition and no confirmed exit, I could not survey visitors. Instead, my assistant came up with the idea of observing and recording participants while hiding in the large winding hallways of the HOME exhibition.

This idea was successful, as I could use previous codes and create new codes to record participant observations, such as individual actions, comments, and internal and external group interactions. The total average visitor time at HOME was 22 minutes and 57 seconds, with an average of 16.5 visitor stops. Out of 17 participants, the total number of stops was 276, and the average number of diligent visitors was 63%.

Table 18. HOME: Native Peoples of the Southwest Data Tracking Results

Total Number of Hours Conducting Fieldwork	10 Hours
Total Number of Participants	17
Total Number of Visitor Movements	276
Total Number of Visitor observations coded	12

Table 19. HOME: Native Peoples of the Southwest Averages

Average Visitor Time	22 minutes 57 seconds
Average Amount of Visitor Stops	16. 5
Average Amount of Diligent Visitors to Exhibition	14/22 Participants, 63%

HOME: Native Peoples ‘Hot Spots,’ ‘Cold Spots’ and rates of interaction:

The major HOME ‘Hot spots’ were the Hopi Exhibit, with a stop value of 51/259, 20% of all participant stops; the Colorado Riverlands region exhibit, with a 47/259, 18% of all stops. And the Rio Grande/Colorado Plateau Region Displays with 35/259 stops, 13% of all stops.

HOME ‘Hot Spots’

The Hopi Display is in the lower right corner of the exhibition and consists of Hopi Katsina dolls from the Senator Goldwater collection, Hopi jewelry, and holiday calendars. This area is well-lit and is in the most accessed corner upon entrance to the exhibit. This corner area is well-lit; surprisingly, this exhibit is in the back corner of the exhibit and is well-visited. The entrance to the Rio Grande/Colorado Plateau area is dissected by a large wooden sign made to ‘turn’ the visitors into the display area. It could be that this sign visually obstructs the entrance to the Colorado Plateau area, as it is not well-lit and is a winding hallway. The last popular section was the Colorado Riverlands section, which was an area that had the aid of natural windows and light to attract visitor to it. The hallway leading to the area is brighter, and easier to navigate than the winding, dark hallway areas.

HOME: Native Peoples of the Southwest ‘Cold Spots’

All three of HOME ‘Cold spot’ areas are interactive areas that lack attracting and holding visitors’ attention in the HOME exhibition. The Video Room is down a dimly lit, dark, small hallway in the middle of the exhibition, tucked between the walls of the Colorado Riverlands and Navajo Display Areas. The Pueblo Oven is a small area lit with a soft light in the Rio

Grande/Colorado Plateau area. It is surrounded by long glass cabinet walls that are moderately filled with different pottery styles from the region, further masking its presence for museum guests. The Hogan area is adjacent to the Video Room and the Hopi Exhibit. Half its location is in the Navajo Display but lacks interpretation material around and within it. The only interpretational text is a small, laminated book to the right of the life-size hogan. Due to lighting, layout, and size, many of my study's participants overlooked these three sections.

Table 20. HOME: Native Peoples of the Southwest ‘Hot spots’

Display	Percentage of Stops	Number of Stops
Hopi Exhibit	20%	51/259
Colorado River Exhibit	18%	47/259
Rio Grande/Colorado Plateau Display	13%	35/259

Table 21. HOME: Native Peoples of the Southwest ‘Cold spots’

Display	Percentage of Stops	Number of Stops
Video Room	1%	5/259
Pueblo Oven Area	2%	6/259
Hogan	3%	9/259

Table 22. HOME: Native Peoples of the Southwest Interactive Areas

Exhibit Area	Percentage of Participants	Number of Participants
Pueblo Oven Area	35%	6/17
Piki Room	35%	6/17
Hogan	53%	9/17
Video Room	29%	5/17

HOME: Native Peoples of the Southwest Interactive Area Rates:

The interaction rates reflect the cold spots and emphasize the value of lighted entrances into these areas. The Piki Room, centered in the Hopi Exhibit, scored similarly to the other

interaction areas. However, it was the best lit out of all interaction areas and had the participant movement traffic of all four interaction areas.

Table 23: HOME: Native Peoples of the Southwest Gallery Observations

Total Number of Participants	Positive Observation Feedback	Critical Observation Feedback	Mixed Observation Feedback
7	2	3	2

Table 24. HOME Gallery Observations:

1st Place Observations 2/17 Participants 12%	2nd Place Observations 1/17 Participants 5%
‘Anasazi’ Word	‘Baskets’
Avoidant of Tour Group	‘Beautiful’
‘Display of cultures’	‘Enjoyed Everything’
Confusion about Exhibition Exit	‘Forced Removal’

I sorted feedback observations into positive, negative, and mixed reactions. Out of the seven participants, two had entirely positive reactions and actions to the exhibit, two had negative observations, and four had mixed reactions to the HOME Exhibition. The highest coded observations for reactions were the ‘Anasazi word,’ the ‘display of cultures’ feedback code, being ‘avoidant of the tour group,’ and ‘visible confusion’ concerning where the exhibition exit was located. The code ‘avoidant of the tour group’ is defined as when a participant specifically avoided the tour group during their time in the exhibition. These observations were recorded from two participants each, with a total percentage of 17% for each code. The second-ranked codes and observations were the ‘baskets,’ ‘beautiful,’ ‘enjoyed everything,’ and ‘forced

removal' codes. These codes were recorded from each participant once to account for 5% of all participant feedback.

These codes are split into critical feedback by the museum visitor and visitor studies feedback. A large percentage of participants recorded were avoidant of the tour group and confused about the exhibition exit. For exhibition content, two individuals were audibly confused about the correct usage of 'Ancestral Puebloan' and wondered why the word 'Anasazi' was removed from the gallery. Another wording example was the term 'display of cultures, ' where two separate participants commented on exhibition details. One participant commented on the former senator Goldwater kachina doll collection details. Another participant commented on the beauty of a display of Tohono O'odham baskets.

The 'forced removal' code appearing in this exhibit was unexpected, as this is only mentioned on the Indigenous Homelands Map area. This area consisted of two maps that discussed the original Indigenous homeland boundaries map and a Tribal reservation map alongside it.

My results include external feedback and movement patterns between the MNA exhibitions and internal patterns within the HOME Exhibition. After establishing and creating connections through my research, I will compare my quantitative visitor movement data with a Visitor Studies database (Serrell 2019) and dissect my visitor feedback codes through the CML (Falk and Dierking 2019).

Chapter 6

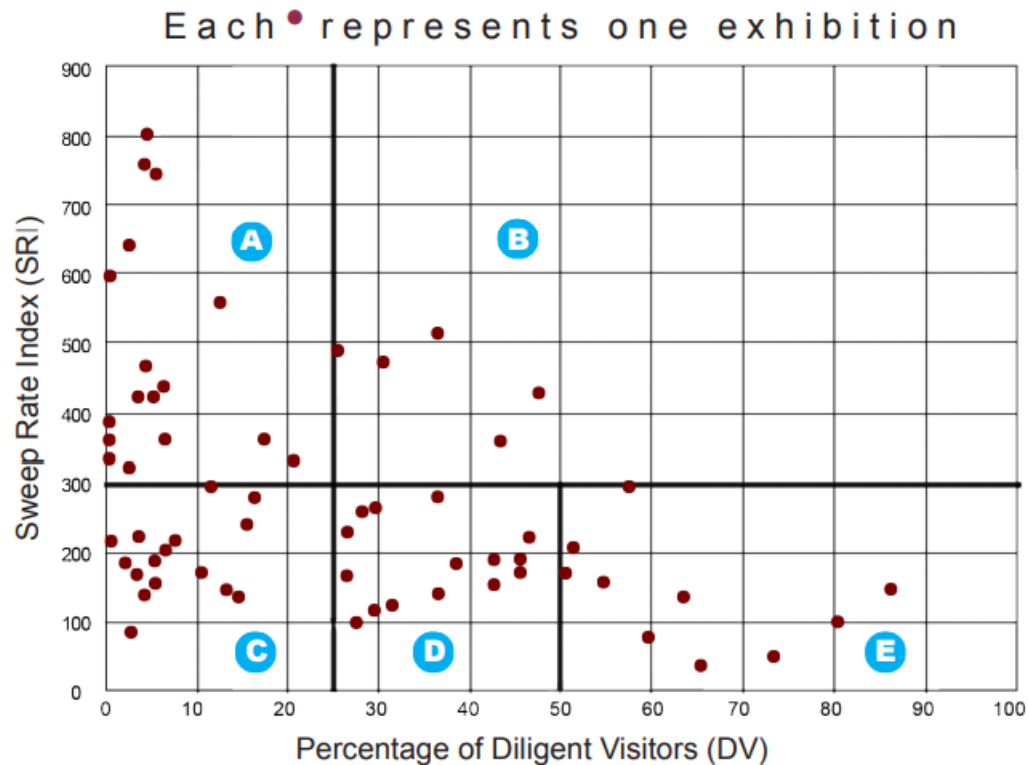
Discussion and Conclusion

My study recorded the behavior of 122 participants at three galleries across two southwestern heritage museums in Arizona. For the first part of my discussion section, I present research conducted by Beverly Serrell and her database on tracking and timing visitor participants across 45 U.S. exhibitions (Serrell 2019). In these sections, I compare my visitor feedback codes to Falk and Dierking's Conceptual Model of Learning (CML) in organized charts (Dier and Falking 2014). I conclude with a discussion of my hypothesis, the accuracy of the study, conclusions, and limitations of this study. Due to the size and scope of this study, these results are limited only to the data I recorded during my research project.

Beverly Serrell's Database

The first database I will compare my research to is Serrell's database of timing and tracking 45 different exhibitions across the United States. Serrell is one of the top researchers for exhibition feedback and participant tracking. Her firm, Serrell and Associates, has contracts with 115 institutions to conduct Visitor Studies and exhibition feedback surveys annually. Serrell isolates four factors when evaluating visitor interactions, time, square footage of each exhibit, the percentage of DV present, and the sweep rate index scores.

Figure 12: Serrell's Audience Tracking Dataset (Serrell 2019).

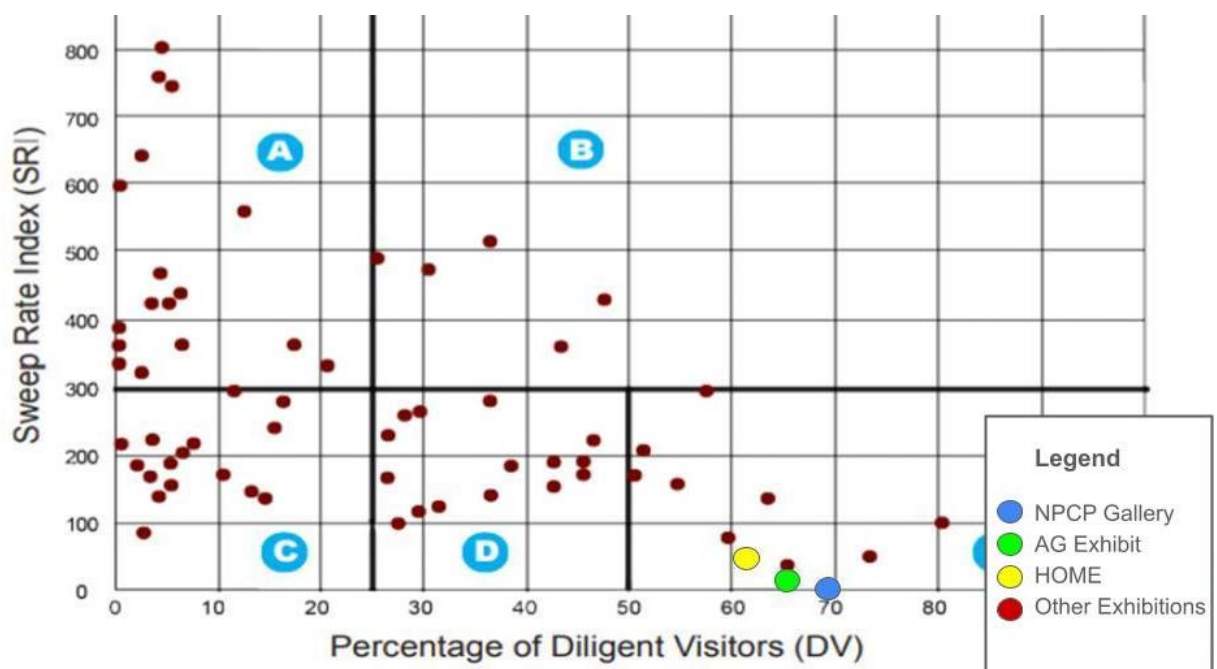


Explanation of Serrell's Chart

Serrell has two equations that rank a visitor's experience within every exhibition. The first is the Sweep Rate Index (SRI), the exhibition square footage divided by the visitor's average viewing time. Her SRI divided by the visitor average exhibition viewing time is on the X axis of this chart. The Y axis consists of the percentage of overall Diligent Visitors (DV) within her exhibition database. Diligent Visitors are guests who visit more than half of each display within an exhibition. Each section of her graph refers to different categories of visitor interaction. There are five sections total: A, B, C, D, and E. Section A consists of a higher SRI Benchmark (above 300) and a low number of Diligent Visitors (25%). This section consists of visitors who conduct glances, with few stops in the exhibition experience. Section B consists of a Higher SRI

Benchmark (>300) and a higher DV rate (>25-50%); visitors in these exhibits have a high sweep rate, but many Diligent Visitors (higher than the average) are present. Section C is composed of a lower SRI than the benchmark (<300), and the DV is higher than the average (<25%). Visitors have the slowest sweep rate out of the other sections, but many visitors skip portions of the exhibition. Section D has a lower sweep rate than the benchmark (<300), the DV rate is higher (>25-50%), and which means the exhibition is efficient and attracts attention from the visitors. The final section, Section E, is the most successful of the exhibitions, as every visitor attends the exhibition thoroughly, and there is a high rate of Diligent Visitors within the space.

Figure 13. Results in comparison to Serrell's Tracking Database



Cross-exhibit Comparison Using Serrell's Metascattergram of Exhibition Usage

All three exhibitions in this study performed surprisingly well within Serrell's DV and SRI formulas. Even with the exhibits' lowest average time (AG Gallery) of 8 minutes, all exhibits studied had many Diligent Visitors attending. These DV rates account for why there are

so many stops and higher exhibition viewing times. Walking through and observing at least half of the exhibitions takes time. While recording visitors, only a handful of visits in each exhibition were ‘flythroughs’ (where a visitor walks through the exhibition fast and doesn’t stop once). NPCP had the highest percentage of diligent visitors and the highest average exhibit time, 33 minutes, and 13 seconds. This score is higher than the average of B Serrell’s database, which is 30 minutes (Serrell 2019). Even the lower performing exhibitions, AG and HOME, performed significantly better and landed in Section E, where exhibitions still grab visitors’ attention, and a high volume of Diligent Visitors attend the exhibition space.

Native Peoples of the Colorado Plateau/Archaeology Gallery results through the CML

Dissection

Three significant factors influenced visitors to the AG and NPCP Galleries. They include the sociocultural influence of the museum docent, the primary physical influence in each exhibition, and the personal influences of the content upon visitors (Tables 25 & 26).

The first shared influence across both exhibitions was the effect of MNA’s museum docents on the visitor. MNA participants liked their tour guides. Having a tour at MNA ultimately shaped six people’s experiences, and they recalled how much they enjoyed their tour when asked for feedback. AG and NPCP participants discussed the importance of clarity and additional information that their docent gave them to help them understand the exhibition content. By comparing the presence of a tour docent to a sociocultural influence, we can see that tour docents influenced the visitor museum experience positively enough for guests to recall their experience at a later visit.

The primary physical influence of all exhibits was mainly positive on exhibition content. Regarding negative feedback, NPCP received constructive criticism on the availability of

accessibility resources for auditory aid and regular gallery maintenance. The AG feedback codes consisted of constructive criticism from visitors and negative feedback from one individual who questioned the gallery's information resources.

Table 25: Native Peoples of the Colorado Plateau Feedback and Falk and Dierking's (Contextual Model of Learning) Factors

Sociocultural Influence Feedback	Physical Influence Feedback	Personal Influence Feedback
"I enjoyed my tour docent (P42)."	"I loved the craftsmanship (P47)."	"I liked the Pottery and Navajo Rugs (P6)."
"I appreciated my tour docent (P33)."	"Sound Cones are broken on the Inner Table Area (P53)."	"The fact that White people did this (displacement/genocide) breaks my heart (P58)."
"My tour guide gave me a great learning experience (P7)."	"I would love a physical booklet with supplemental material on the exhibit (P54)."	"This is what Arizonans need to see, the discovery of gold (here) messed up all these Tribes (P59)."
N/A	"I would like earphones or a remote control for the video, I can barely hear anything (P58)."	"I disliked how the US government and Spanish Settlers treated Native Peoples and only gave them a fraction of their homeland (P19)."

Table 26: Archaeology Gallery Feedback and Falk and Dierking’s (Contextual Model of Learning) Factors

Sociocultural Influence Feedback	Physical Influence Feedback	Personal Influence Feedback
“I loved my docent experience (P94).”	“The museum needs a Senior Discount (P78).”	“My father was a pottery collector (P78).”
“I liked the (NPCP Video) in the other room, I didn’t like anything in here (p102).”	“I liked the sand in the exhibit cases (P59).”	“I want more stories about people, this room feels so quiet compared to (NPCP) (P94).”
N/A	“I loved the architecture and the smell of the exhibit (P79)”	“(Points to Pecos Timeline) This is all inaccurate. (P102)”

Discussion of Contextual Model of Learning on Understanding The Heard Museum Observations

It was apparent that participants were actively avoiding the tour guides for the THM. Visitors also became frustrated upon not being able to find the exhibition exit. In terms of patterns, some individuals personally connected with the display of certain items. In the basketry section of the Colorado Riverlands exhibition, one participant discussed and compared the artifacts in the displays to familial items of their own. In the same exhibition, on the opposite side of the display, another participant saw the ‘Prayer Stick’ artifact section and visibly muttered, ‘This is an insult to our elders (P111).’

Visitor movements and observations without survey feedback can only tell us so much about the design, location, and attraction rate of exhibitions but do not contribute to understanding of visitor perspectives. For the data I collected in the HOME exhibition, I can only

draw results based on physical factors such as exhibition design, lighting, accessibility of text, and exit accessibility. (Table 27)

Table 27: HOME: Native Peoples of the Colorado Plateau Feedback and Falk and Dierking’s Contextual Model of Learning Factors

Sociocultural Influence Feedback	Physical Influence Feedback	Personal Influence Feedback
“Participant 118 avoided tour and group. (P118)”	“Where is the exit? (P112).”	“What does Ancestral Puebloan mean? (P118)”
“Participant 117 was pulled by an internal group of family members and spouse (P117).”	“Look how fine woven that basket is (P110).”	“This is an insult to our elders (P111)”
“Participant 104 avoided the tour group and went in the opposite direction of the gallery upon tour entrance (P104).”	“You got lost?” “I’m really confused about the layout of this exhibit (P119 to friend).”	“Your grandma and grandpa used to make those baskets (P104 to child).”

Seeing the Difference: Presence and Absence of Indigenous Perspectives

Crucial Visitor Feedback data from both the NPCP and AG Gallery shows that many visitors can identify the patterns of disconnection of the Indigenous Perspectives in the AG and the significant presence of Indigenous voices in the NPCP gallery. Of the participants I surveyed, 16 out of 27 (59%) participants in both AG and NPCP commented about the disconnected voices in the AG Gallery and the presence of Indigenous voices in NPCP. Sixteen participants (3 in AG, 13 in NPCP) discussed the importance of stories and the learning experience of genocide, mistreatment, and mass removal policies in NPCP (3 in AG, 13 in NPCP).

In the Archaeology Gallery, three out of the seven interviewees (42%) commented on the exhibit's silence and absence of Indigenous perspectives. In NPCP, 13 out of the 20 participants (65%) interviewed discussed the importance of learning about the US's policies enacted to place an end to Indigenous Peoples on the Colorado Plateau in the NPCP Gallery. The codes for uncomfortable, genocide, mistreatment, and mass removal were mentioned by those same 13 out of 20 participants. The accuracy of this study is limited. I feel like I can only say this was successful because I interviewed two participant groups with exhibitions right next to each other that are vastly different.

Limitations and Overall Thoughts

The museum experience is a complex phenomenon and can't be completely understood based on easily measured variables in a single survey feedback interview (Falk and Dierking 2009). I believe that my research was able to briefly discuss patterns in initial reactions to a visitor in a museum exhibition. If I were to redo this study, I would have pursued qualitative interviews with the same participants months after their initial museum visit to understand how experience shapes museum guests' experience. I also think I missed out on a crucial form of data by being unable to interview the participants in the HOME exhibition. The most crucial factor in looking at visitor perspectives is understanding what is memorable to a visitor in an exhibition.

Initial Audience Reception to Contemporary Indigenous Art in Exhibitions

One primary pattern I noticed while recording participants' interactions within these exhibitions was the reaction to the presence of contemporary Indigenous art in these exhibitions. The NPCP and HOME Galleries represented a newer generation of artists displaying their cultures. In my feedback for the NPCP Gallery, there were positive comments on the presence of Indigenous art in the interactive table portion. Visitors do notice when there is a presence of

Indigenous perspectives in heritage exhibitions and most enjoyed seeing newer artists in the exhibition.

As seen in the literature review, the presence of contemporary Indigenous Art was received negatively by the public at the NMAI. Both critics and the guests at the opening commented that the newer art featured didn't belong in the space, commenting that the artists were too 'new' to be featured at the opening of the NMAI. After the initial reception of NMAI, appreciation for contemporary Indigenous artwork has grown exponentially in the field of museum studies. Witnessing this newer Indigenous artwork on display is accepted at Museological institutions. The success of newer Indigenous art galleries at the MNA and THM has proved this.

Evaluating Indigenous Perspectives in Artifact Collections/Management and Exhibition Design:

The Heard Museum and Museum of Northern Arizona have worked on essential exhibits featuring Indigenous Voices. These exhibits include “The Force is With Our People” (MNA 2018) and “Away from Home: American Indian Boarding School Stories” (THM 2000). These exhibitions featured Indigenous perspectives and presented unique exhibit content. However, private museums lack public funding to create these exhibitions and must rely on grants, donors, and scholarships for museum exhibitions. The discipline of Museum Studies is changing, and more museums, archaeology, and ethnographic researchers are emphasizing the importance of using collaboration in decolonizing museums.

Overall Presence of 'Indigenizing the Narrative' vs America's 'Master Narrative'

Exhibition design depends entirely on the Institution's perspective, proposed audience, and content. However, there are clear patterns when it comes to Indigenous presence in the exhibition versus a lack of it. For the NPCP Gallery and The HOME Gallery, Reservation and

Home Territory Maps are in front and center of each exhibition, and there are text panels dedicated to U.S. Government Policies discussing the displacement and relocation of Indigenous tribes onto reservation lands. The AG Gallery mentions ancient peoples of the Colorado Plateau in the past tense and discusses possibilities of mass disappearances but fails to connect hypothesized “disappearances” with contemporary peoples and their own histories.

The NPCP Gallery has the most consultants, mentions of stories, and media to support the presence of Indigenous Peoples on the Colorado Plateau. One quote in the gallery in NPCP explains, “Hopi Farming, Uylawu. We are primarily dry farmers who plant many of our crops in sandy soils. By planting our seeds deep, their roots reach moisture that lies well beneath the surface (NPCP 2018).” This didactic text is accompanied by pictures of Hopi farmers working in a field, and a corn planting stick is on display. This text also has an informational graphic that discusses the Hopi origin story and the importance of the corn planting stick, Hopi corn crops, and the Hopi identity. Out of the three exhibitions, the NPCP successfully conveys the information of each tribe through their perspectives.

The HOME Gallery mentions stories, people, and artists but is twenty years old in design and focuses on utilizing a third-person, 'omnipresent' narrator to explain cultures. In the gallery are quotes from Native consultants, and didactic text are below the quotes. One text panel in HOME reads, “Ancestral Pueblo. Ancestral Pueblo people learned to make their homes as agriculturalists in a dry land. Lives depended on knowing when rain might fall, which land retained moisture, and when frost ended a growing season (HOME 2004).” This didactic text has good text, and content. However, it feels disconnected from the cultures of the Colorado Plateau in comparison to the NPCP.

The AG Gallery has no mentions of peoples, only one photo of an Indigenous person, and has no extra media available except for the video QR code located in the Betatakin section of the exhibition. One quote from the gallery is “The Anasazi Tradition. By the time of Christ, several regional traditions had developed in the Southwest. These included the Hohokam, Mogollon, Patayan, and Anasazi Traditions. Here we shall tell the story of the Anasazi” (AG 1980) Here, the text is presented with outdated terms such as “Anasazi,” and the third-person narrator compares this group of Indigenous people to a Western religious event, the time that Jesus Christ was alive. This statement is both a comparison and a point of reference within this gallery. By reading this text, the audience can see the underlying framework of America’s Master Narrative. By defining an Indigenous group to the timeline of the coming of Christ, there is a presence of a Westernized bias within this gallery. This gallery has the most significant presence of disconnection from Indigenous Peoples of the three exhibitions I surveyed.

Conclusion

My study indicates that participants notice the presence of Indigenous voices in exhibitions. This study shows that museum visitors can recognize when there is a presence of Indigenous stories and prefer it over a single omnipresent narrator. Despite this study being successful in answering the research questions, it also raised several additional questions for further research. When given a chance to provide feedback, visitors will give critical suggestions to help the museum improve the exhibition. Visitors will use the opportunity to explain what they learned or if there was an influence that assisted in forming their personal experiences.

Visitors are more likely to want newer and collaborative exhibitions. Museum guests are drawn to exhibitions that have Indigenous perspectives. Out of my three participant institutions, visitor feedback about exhibitions at the MNA institution indicated that visitors enjoy content or

material that is new to them, including new perspectives. Collaborative exhibits offer differing perspectives that benefit both museums and stakeholder groups. Out of all the visitor feedback conducted, the participants in NPCP produced the most positive feedback and a longer average exhibition viewing time. Most visitors commented that they loved the presence and storytelling structure in the exhibition design. NPCP was four years old at the time of my study, and visitors stayed there for an average of 33 min 13 seconds.

In further exploration of my visitor feedback data, I found that visitors are incredibly diligent and enjoyed the tour docents at the MNA. Visitors also commented positively on the MNA docent volunteers at the museum. When presented with questions about an exhibit, visitors will point out outdated resources, broken museum components, or the need for auditory aid/supplemental information in exhibits.

Not all research gathered during this study could help to understand visitor feedback. My hypothesis would have been more robust if I had surveyed HOME participants about how they felt about the exhibition. I could apply my hypothesis to a broader field of study of archaeological exhibitions with no Indigenous presence versus collaborative heritage exhibitions with beautiful displays of culture.

The NPCP exhibition interviews worked more effectively due to the extra ‘quiet’ spaces in the transition areas. One quiet space was a transition space between a ‘kiva’ area and the Lockett Fine Art Gallery. Visitors were able to focus during my interviews in a quiet space. When I interviewed participants in the AG, they would become distracted due to the ‘Welcome’ Video in NPCP in the exit area. Visitors in the AG were more likely to decline the interview and go straight in to watch the NPCP Entrance Video. At The HOME exhibit, participants would be overwhelmed and lost in the ‘exit’ area of the HOME exhibition. Participant movements cannot

tell us a lot about the personal opinions of museum guests. They can tell us which areas in an exhibition are successfully designed. Visitors are attracted to well-lit, accessible areas with supplementary material that engages the visitor. Most ‘cold spots’ are darker exhibition areas, with little to no interpretational material and nothing to engage the visitor. Participant movement patterns can aid exhibition designers and museum personnel in visitor perceptions of target exhibitions. Within my research, despite visitors being attracted to successful lighting and exhibition design, many visitors did comment on the importance of integrating Indigenous perspectives into southwest heritage exhibitions.

According to my data museum guests are attracted to 1st person perspectives in museum exhibits. Participants interacted with the ‘Welcome’ video at the front of the NPCP exhibit and commented on it in my visitor surveys. Many participants interacted with the interactive table area, and there was a lot of positive feedback on the placement and presence of the interactive components within the table. Also, participants in AG made comments about the silence of the gallery in comparison to NPCP. Specifically, participants felt that the AG space was underutilized and silent. Participants wanted more stories in the AG and felt underwhelmed by the exhibit's content. My findings indicate that visitors are attracted to first-person stories, faces, and perspectives.

An understanding of anthropology, archaeology, visitor studies, and museum studies is required to analyze perceptions in exhibitions properly. The research on the importance of collaboration in heritage and archaeological exhibitions has already been published in research and literature. Regarding research possibilities, my results would have been different if I had been able to interview more participants over a few months versus short five-minute feedback

interviews. Overall, Indigenous presence in archaeological exhibitions has been an important topic pertinent to museums, public archaeology, and the field of Anthropology.

Appendix A: Survey Questions

CONSENT: ☐ Yes ☐ Decline to Interview

1. What stood out to you in this exhibit?
2. Is there anything you liked in this exhibit?
3. Is there anything you disliked in this exhibit?
4. Is there anything that made you uncomfortable in this exhibit?
5. If possible, would you like to draw a map of how you perceive this exhibit?
6. Is there anything you would like to add?

Thank you again for your time.

Appendix B: Codebook

Code	Definition	Example
Jewelry	Any comment about jewelry in the exhibition.	"I really loved all the jewelry."
Exhibition Content	Any comment about the exhibition content.	"I liked everything in this exhibit."
No/Nope	Any simple 'no/nope' comment.	'Nope'
Video	Any comment about the video in NPCP?	"I really enjoyed the video."
Misinformation	Any comment implying inaccurate information within the exhibition.	"Everything on this wall is wrong- It's all misinformation."
Basketry	Any comment on Basketry in the exhibition?	"I really loved the detail in the baskets along the wall."
Navajo Rugs	Any comment pertaining to the Navajo Rugs in the exhibition.	"I wanted to see the Navajo Rugs."
Auditory Aid	Any comment suggesting auditory aid to understand exhibition content better.	"I hope that next time there is a volume control on the video." "I think that the video was too quiet, and I wish there was a remote."
Peoples used in Past Tense	Any comment made about the wording of the content.	"The way that these people are portrayed is in the past tense, and to me that's very sad."
Religious Practices	Any comment about Indigenous Spirituality or religious systems.	"I really enjoyed the Indigenous religious systems in this exhibit."
Interactive Area	Do you any comments pertaining to the central interactive table area in NPCP?	"I enjoyed the middle table."
Broken Exhibition Components	Any comment pertaining to broken exhibition parts?	"The screens on that wall are broken." "Those cones above used to produce sound, now they're broken."

More stories	Any comment made about the addition of stories.	"I wish there was more stories about people in this space."
Timeline Food Cans	Any comment pertaining to the Timeline food cans in the AG.	"I really like the cans in that Pecos timeline."
Senior Rates	Any comment made about the presence of Senior Discount admission rates.	"I wish there was a senior rate."
Tour Guides	Any comment made about the institution's docents or tour group.	"I really enjoyed my tour guide here, he gave a lovely tour." "My tour guide was wonderful last time and I'm looking to my tour again."
Genocide	Any comment made about the specific action of Genocide.	"It makes me sad what the US did... specifically, the Genocide."
Color	Any comment made about the colors in the gallery.	"I loved the color! It really stood out to me."
Tribal Autonomy	Any comment made about the tribe talking in their own words.	"I enjoyed how each tribe described themselves in their terms."
Tribal History	Any comment made about the tribal histories.	"I enjoyed each of the histories of each tribe."
Display of Cultures	Any comments made about the exhibition's cultural displays.	"I loved the display of cultures in this space."
Anasazi/Ancestral Puebloan Word	Any comment about the word 'Anasazi' or 'Ancestral Puebloan' includes confusion or confirmation.	"I am really confused about the people here, are they Anasazi or Ancestral Puebloan?"
Enjoyed Everything	Any comment made that pertained to the enjoyment of everything in the exhibition.	"I enjoyed everything."
Learning Experience	Any comment made pertaining to the learning experience had by the visitor.	"It was a learning experience."
Beautiful	Any comment made about the beauty of the exhibition.	"Everything about this exhibition is beautiful."

Avoidant of Tour Group	Any observation made where the participant actively avoided the tour group.	‘Participant 106 avoided when the tour group entered the exhibit at 18:07’
Indigenous Contemporary Art	Any comment pertaining to the presence of contemporary Indigenous art in the exhibition.	“I really enjoyed the skateboard art.”
Too Much Text	Any comment pertaining to the length and size of exhibition text in a critical manner.	“Disliked? I though the exhibit had too much text.”
Confusion about Exhibit Exit	Any observation about clear misunderstanding of where the exhibition exit is located.	‘Participant 113 seemed confused around 19:30 and began looking for the exit.’
Forced Removal	Any comment made around the forced relocation of Indigenous Peoples.	“I am upset about the US relocation policies, we moved those poor people onto reservations.”
Better than old display	Any comment pertaining to an improvement to the last exhibition in place.	“It was better than the old exhibit, that’s for sure.”
Wanting more (Overall content)	Any comment pertaining to the want of more content.	“I really wanted more people, more perspectives.”
Mistreatment	Any comment on the basic mistreatment of Indigenous Peoples in the past.	‘I think we definitely mistreated those people.’
Uncomfortable	Any comment made about feeling uncomfortable.	‘I felt uncomfortable when I learned about the tribes displacement.’
Want to Bring others	Any comment made wanting to bring others to the exhibition.	“I want to bring my mom here next time.”
QR Code	Any comment pertaining to the supplemental QR code in the AG Gallery.	“I really enjoyed the QR code link and the video on it.”
Supplemental Exhibition Pamphlet	Any comment that discusses an additional information pamphlet about the exhibition?	“I wish there was a brochure or a paper that I could read more about.”
NPCP (Overall)	Any comments made that pertain to NPCP.	“I really enjoyed the NPCP Gallery more than this one.”

References Cited

- Anderson, Susan
2019 *Visitor and Audience Research in Museums*. The Routledge Handbook of Museums, Media, and Communication. 1st Edition. Taylor Francis Publishing, Milton Park, Oxfordshire .
- American Alliance of Museums
2023 *Find a Museum Webpage*. American Alliance of Museums Database. URL: <https://ww2.aam-us.org/about-museums/find-a-museum>. Accessed on October 25th, 2023.
- Ames, Michael M.,
1992 *Cannibal Tours and Glass Boxes: The Anthropology of Museums*. UBC Press, Vancouver.
- Arizona State Museum
2023 Arizona State Museum Welcome Webpage. URL: <https://statemuseum.arizona.edu/>
- Barab, Sasha A., Kirshner, David
2001 Rethinking Methodology in the Learning Sciences. *Journal of the Learning Sciences* 10 (1-2): 5-15.
- Boas, Franz
1907 *Some Principles of Museum Administration*. American Association for the Advancement of Science Jun. 14, 1907, New Series, Vol. 25, No. 650 (Jun. 14, 1907), pp. 921-933
- Clifford, James
1997 *Museums as Contact Zones*. Routes. Print.
- Deloria, Philip. J.
2018 *The New World of the Indigenous Museum*. *Daedalus* 147(2):106–115.
DOI:[10.1162/DAED_a_00494](https://doi.org/10.1162/DAED_a_00494), accessed July 27, 2023.
- 2015 *American Master Narratives and the Problem of Indian Citizenship in the Gilded Age and the Progressive Era*. Cambridge University Press, Boston.
- 1999 *Playing Indian*. Yale University Press, New Haven.
- Erikson, P. P.
2008 Decolonizing the ‘Nation’s Attic’: The National Museum of the American Indian and the Politics of Knowledge-Making in a National Space. In *The National Museum of the American Indian: Critical Conversations*, edited by Amy Lonetree, and Amanda J Cobb, pp. 43-83. University of Nebraska Press, Lincoln, Nebraska

Enote, Jim

2011 *A: shiwi A:wan Ulohnanne, The Zuni World*. Museum of Northern Arizona Press. Flagstaff, Arizona.

2019 *Museum Collaboration Manifesto*. Accessed via guidelines for collaboration database. URL: https://guidelinesforcollaboration.info/wpcontent/uploads/2019/11/sar_gl_museum_collaboration_manifesto_updated_nov_2019_v2.pdf

Falk, John and Dierking, Lynn

2019 *Reimagining public science education: the role of lifelong free-choice learning*. Disciplinary and Interdisciplinary Science Education Research 1(1):10. DOI: accessed September 9, 2023.

2014 *Analyzing Science Education in the United Kingdom: Taking a System-Wide Approach*. Wiley Online Library. Wiley Publishing. Hoboken, New Jersey Accessed on November 12, 2023 <https://doi.org/10.1002/sce.21140>

2012 *The Museum Experience: Revisited*. Left Coast Press. Walnut Creek, California.

2000 *Learning from Museums: Visitor Experiences and the Making of Meaning (American Association for State and Local History)*. Rowman and Littlefield Publishers, Washington DC Print.

Colton, Mary-Russell Ferrell

1978 *Hopi Dyes*. 2nd Edition. Museum of Northern Arizona Press, Flagstaff, AZ.

Frey, Bruno S., and Stephan Meier

2003 *The Economics of Museums*. SSRN Electronic Journal. DOI: [10.2139/ssrn.413901](https://ssrn.com/abstract=413901), accessed July 27, 2023.

Graves, Jean A.

2017 *Education, Administration, and Class Struggle at the Museum of Modern Art, 1937-1969*. Studies in Art Education 58(1):17–27. DOI: [10.1080/00393541.2016.1258529](https://doi.org/10.1080/00393541.2016.1258529), accessed July 27, 2023.

Google Analytics

According to Google Search, 2022 Popular Visitor Times for the Museum of Northern Arizona. URL: <https://www.google.com/search?q=museum+of+northern+arizona>

2022 *Popular Visitor Times for The Heard Museum according to Google Search*. URL: <https://www.google.com/search?q=The+Heard+Museum>

Harjo, Laura

2019. *Spiral to the Stars, Mvskoke Tools of Futurity*. University of Arizona, Tucson, Arizona Press.

Haworth, John

2016 *100 Years And Counting: Reflections About A Collection, A Collector And The Museum Of The American Indian (Before There Was An NMAI)*. Spring 2016.Vol 17. No. 1. URL: <https://www.americanindianmagazine.org/story/100-years-and-counting-reflections-about-collection-collector-and-museum-american-indian>

Hooper-Greenhill, E.

1994 *The Educational Role of the Museum*. Accessed with Semantic Scholar.

URL: <https://www.semanticscholar.org/paper/The-Educational-Role-of-the-Museum-Hooper-Greenhill/709f09c20065f9c0d202a1039efeedb31682207>

Jenkins, David

1994 *Object Lessons and Ethnographic Displays: Museum Exhibitions and the Making of American Anthropology*. *Comparative Studies in Society and History* 36(2):242–270. accessed July 27, 2023

Kovach, Margaret

2009. *Indigenous Methodologies: Characteristics, Conversations, and Contexts*. 2nd Edition. University of Toronto Press, Toronto, Canada. Print.

Kreps, Christina F.

1998 *Introduction: Indigenous Curation*. *Museum Anthropology* 22(1): 3-4.

2008 *Appropriate Museology in Theory and Practice*. *Museum Management and Curatorship* 23(1): 23-41.

2009 *Indigenous Curation, Museums, and Intangible Cultural Heritage*. In *Intangible Heritage*, edited by Laura Jane Smith and Natsuko Akagawa, 193-208. London and New York: Routledge.

2003a. *Liberating Culture: Cross-cultural Perspectives on Museums, Curation and Heritage Preservation*. London: Routledge.

2003b. *Curatorship as Social Practice*. *Curator: The Museum Journal* 46 (3): 311–23.

Lau, Gigi, McKercher, Bob

2006 *Understanding tourist movement patterns in a destination: a GIS Approach*. School of Hotel and Tourism Management. Hong Kong.

Lane, Kelly and Koth, Zoe

2021 *Adjusting Expectations: The Impact of 2020 Campus Closures on Advisors' Approaches to Graduate Student Mentorship*. Department of Biology and Teaching. Journal of Microbiology and Biology Education.

Lightfoot & Parrish

2009 *California Indians and Their Environment: An Introduction*. California Natural History Guides. Volume 96 University of California, Oakland, California Press, Print.

Lonetree, Amy, and Cobb, Amanda

2008 *The National Museum of the American Indian: Critical Conversations*. 1st Edition. University of Nebraska Press. Lincoln, Nebraska Print.

Lonetree, Amy

2012 *Decolonizing museums: representing native America in national and tribal museums*. First Peoples: New Directions in Indigenous Studies. University of North Carolina Press, Chapel Hill, North Carolina.

Museum of Northern Arizona

2023 *Board of Trustees webpage*. Museum of Northern Arizona Website, Accessed 11/1/2023, URL <https://musnaz.org/about/board/>.

Museum of Northern Arizona

1980 *The Archaeology Gallery*. Exhibit at the MNA.

Museum of Northern Arizona

2018 *Native Peoples of the Colorado Plateau Exhibition*. Exhibit at the MNA.

National Museum of Ethnology

2020 *Decolonizing Museum Catalogs: Defining and Exploring the Pattern*. Trajectoria:

Anthropology, Museums and Art,

2020 Vol. 1. URL: https://trajectoria.minpaku.ac.jp/articles/2020/vol01/01_1_2.html

National Park Service

2023 *Archaeological Resources and Protection Act of 1979*. Webpage. URL: <https://www.nps.gov/subjects/archeology/archaeological-resources-protection-act.htm>

Steeves, Paulette

2020 *The Indigenous Paleolithic of the Western Hemisphere*. University of Nebraska Press, Lincoln.

Padian, Michael Tyler

2023 *Anthropogenic Fire Legacies on the Colorado Plateau: An Ecological Investigation of the Grand Canyon National Park*. Unpublished M.A. Thesis, Department of Anthropology. Northern Arizona University, Flagstaff.

Pickering, Nicola

2020 *The Museum Curator's Guide: Understanding, Managing and Presenting Objects*. Accessed through the NAU Cline Library. Print.

Schuster, Mark J.

1998 *Neither Public nor Private: The Hybridization of Museums*. Journal of Cultural Economics, Vol 22, No. 2/3, Special Issue on the Economics of Museums (1998), pp. 127-150. Accessed via JSTOR URL: <https://www.jstor.org/stable/41810663>.

Serrell, Beverly

1998 *Paying Attention: Visitors and Museum Exhibitions*. American Association of Museums: Professional Practice Series. Print.

2019 *The Metascattergram- An Aggregation of Tracking-Timing Data for Benchmarks of "Thorough Use"*. Conference Poster presented at the Visitor Studies Conference 2019. Accessed on ResearchGate. URL: https://www.researchgate.net/publication/335404776_The_Metascattergram_--An_Aggregation_of_Tracking-Timing_Data_For_Benchmarks_of_Thorough_Use/citations

Strunk, Julia Marie

2016 *Indigenous Curation at the Denver Museum of Nature and Science*. Theses and Dissertations. 1235. Accessed via digital commons. URL: <https://digitalcommons.du.edu/cgi/viewcontent.cgi?article=2235&context=etd>

The Heard Museum

2023 *Board of Trustees webpage*. Accessed 11/1/2023, URL <https://heard.org/about/trustees/>

2004 *HOME: Native Peoples of the Southwest Exhibit*. Exhibit at THM.

The Heard Museum

2006 *The Heard Museum About Webpage*. Accessed via Wayback Archive. URL: <https://web.archive.org/web/20061010055835/http://www.heard.org/NETCOMMUNITY/Pa ge.aspx?&pid=221&srcid=183>

Trotter, Robert

1989 *Monster Time and Other Ethnographic Insights at Wupatki National Monument*. Oregon State University Press.

Turner, CL.

2011 *Making Native Space, Cultural Politics, Historical Narratives, and Community Curation at NMAI*. Accessed via JSTOR: <https://www.jstor.org/stable/24782029>

Yalowitz, S. and Bronnenkant, K.

2009 *Tracking and Timing: Unlocking Visitor Behavior*. Visitor Studies 12(1), 47-64.